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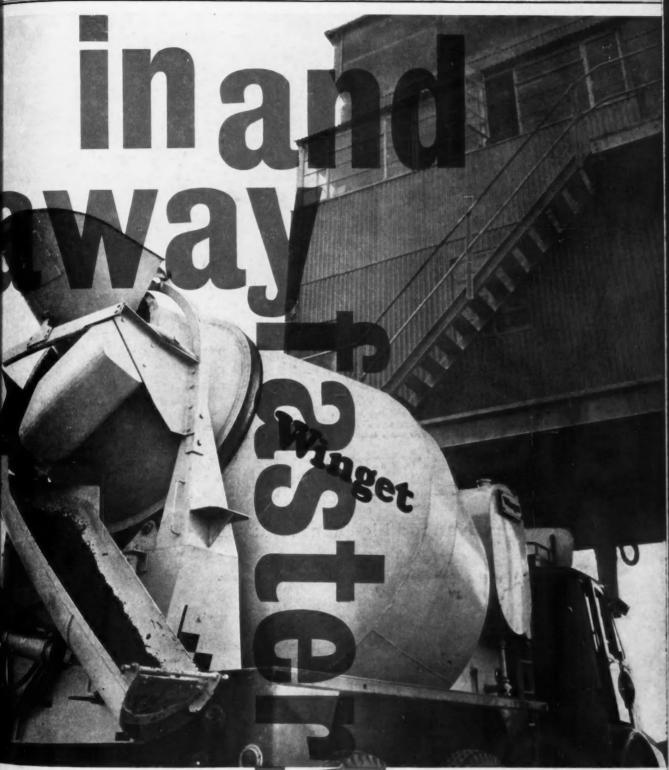
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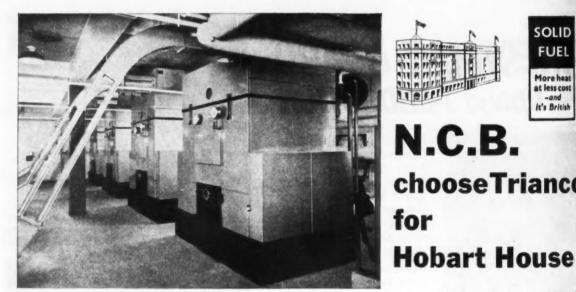
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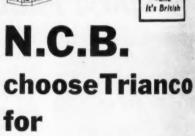


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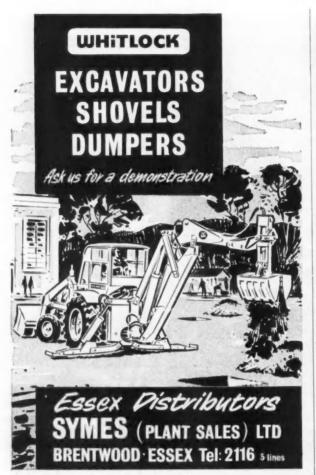








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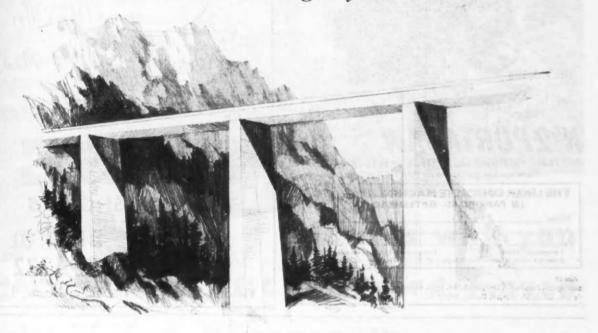
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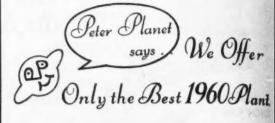
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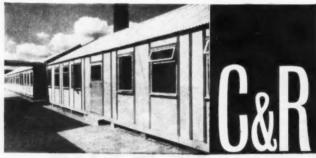


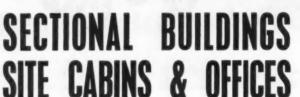
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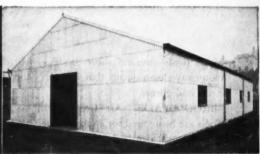
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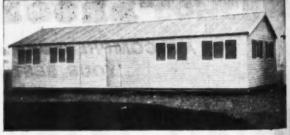
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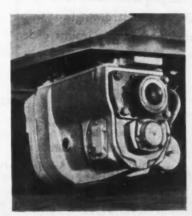


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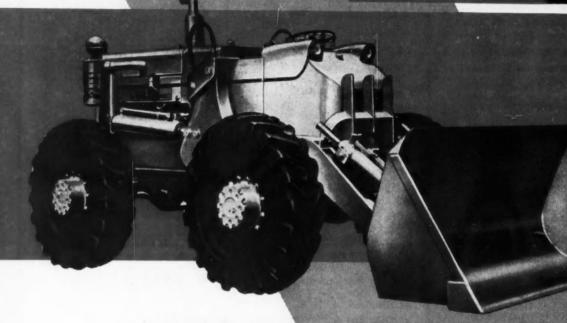
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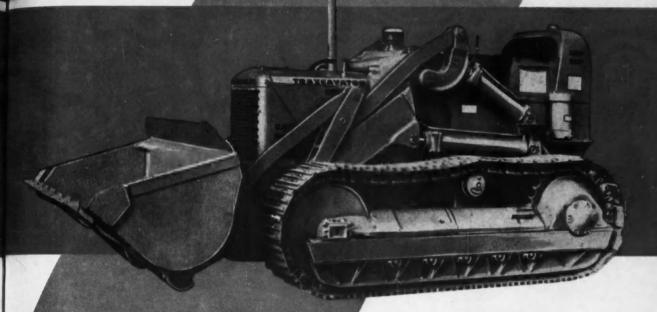
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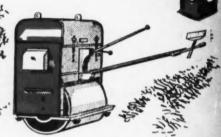


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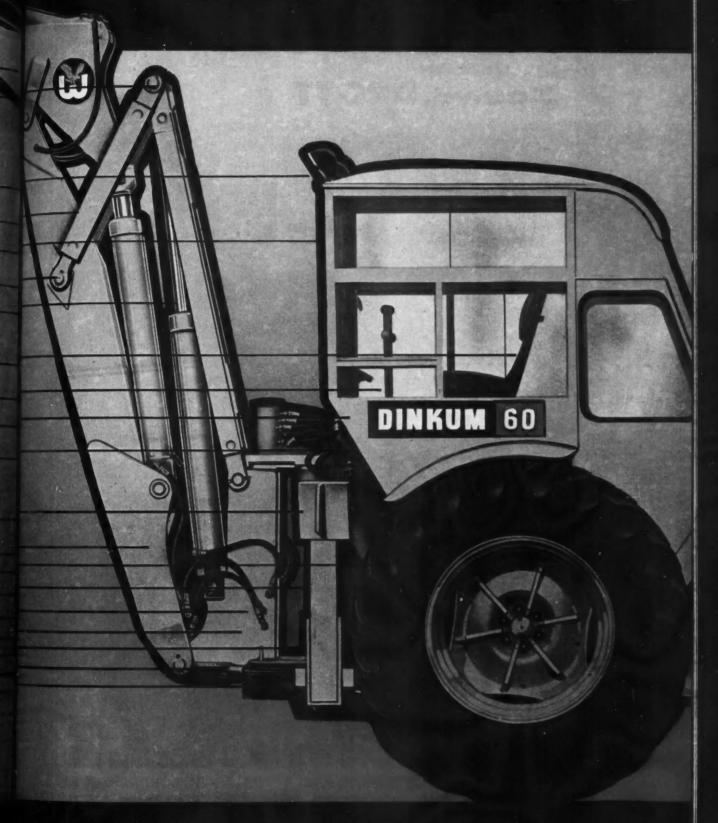
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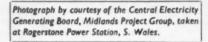
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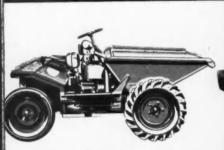
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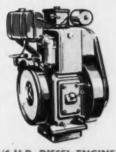
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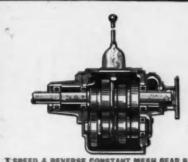
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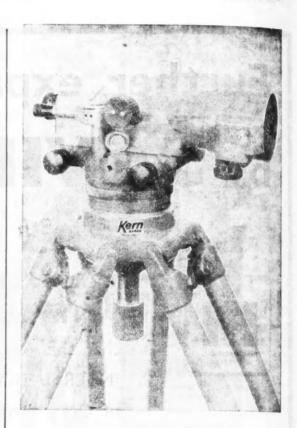


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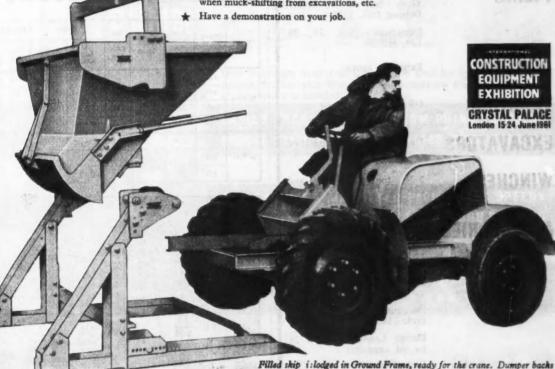
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- \* "Trip-Skip" is interchangeable with normal tipping skip on all Johnson Dumpers.
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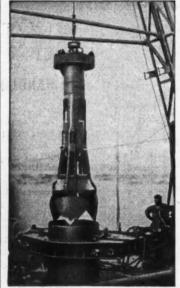
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	201	251		189.	1841 lbs.		221	211
	248	291"		211	1962 lbs.		26"	241
E-4342	281	336"	3	248	2866lbs.	243 lbs.	301	291
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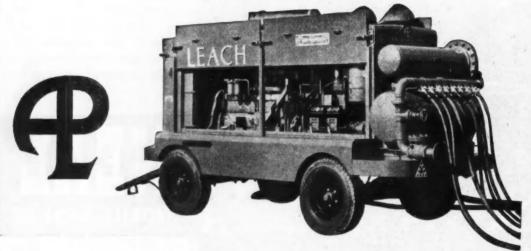
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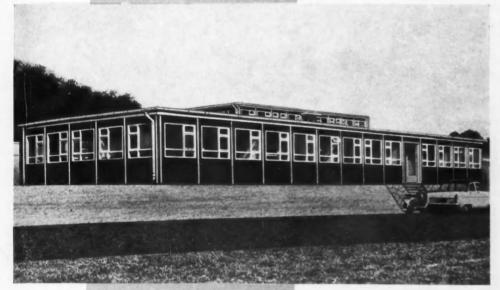


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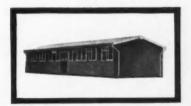
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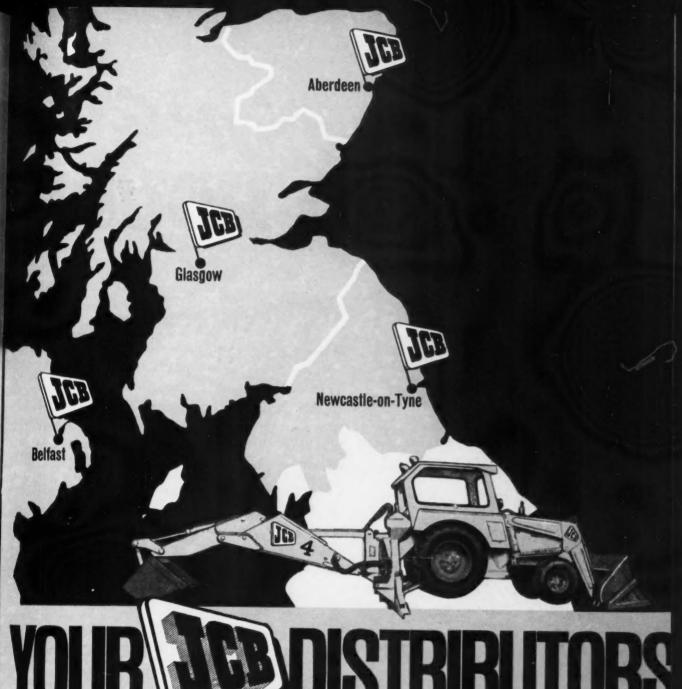
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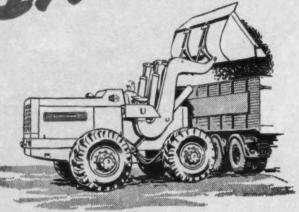


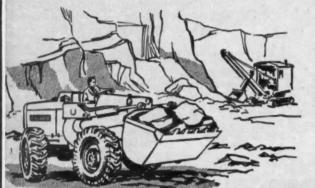
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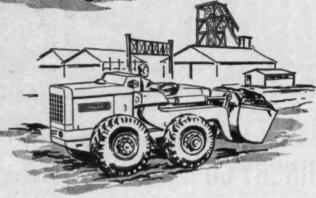
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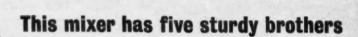
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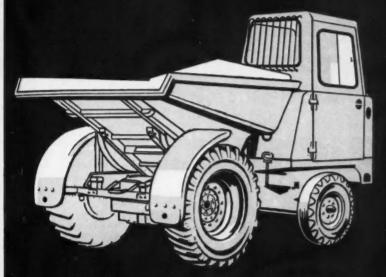
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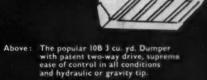
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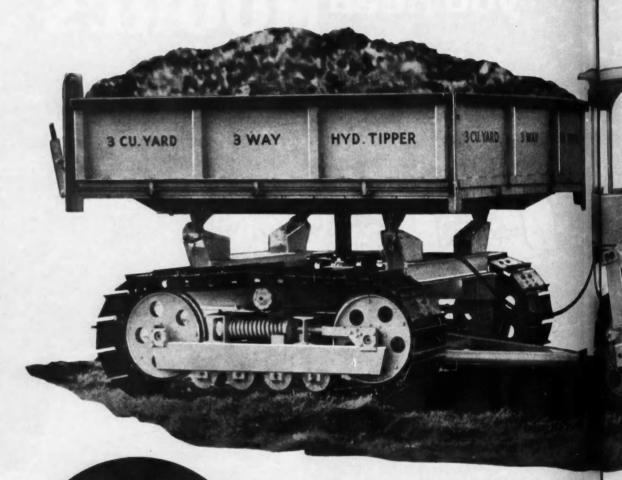
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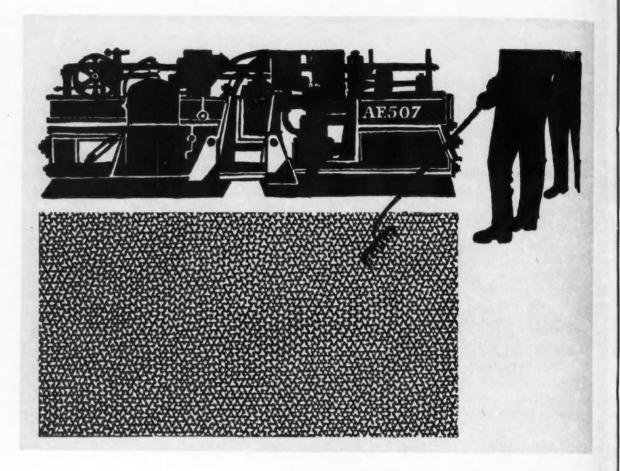
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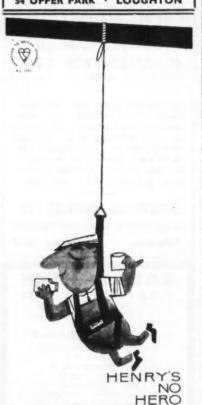
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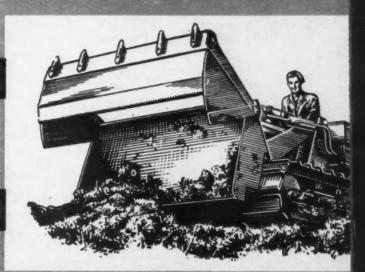
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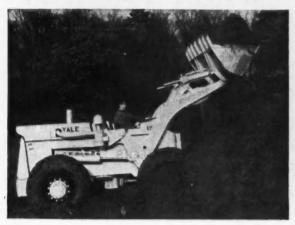
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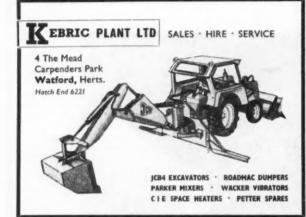
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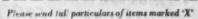
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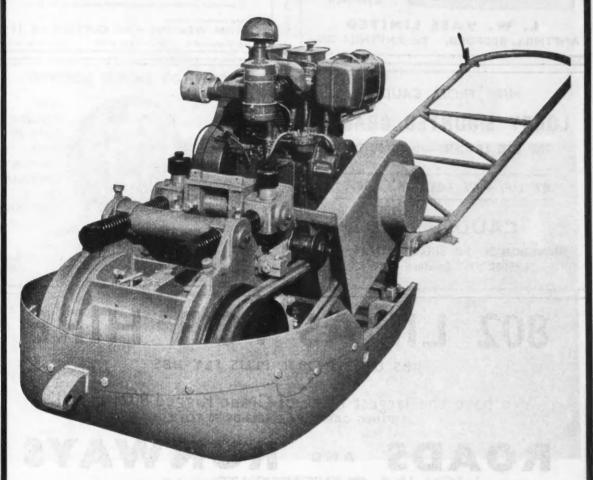


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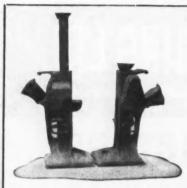
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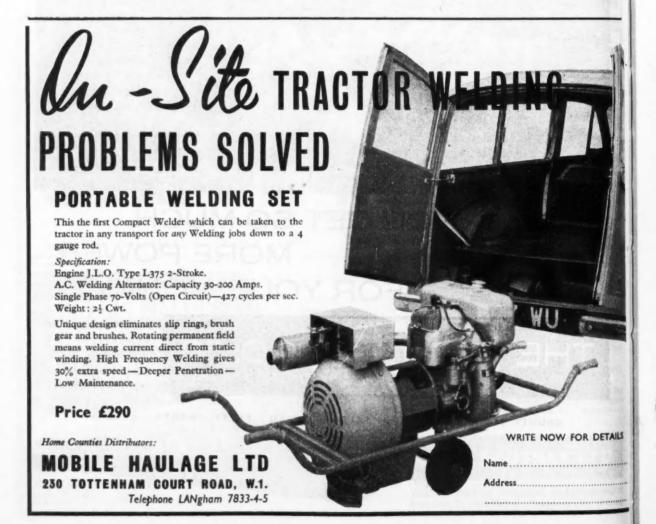
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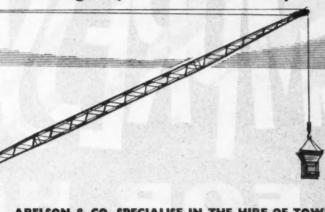
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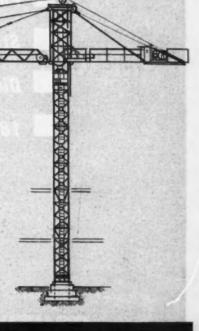
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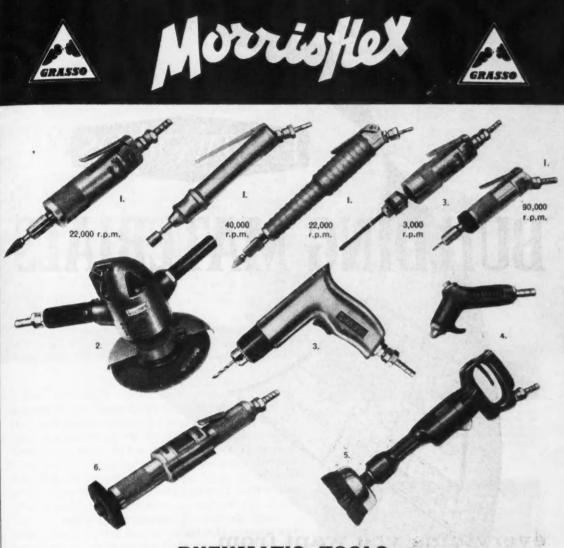
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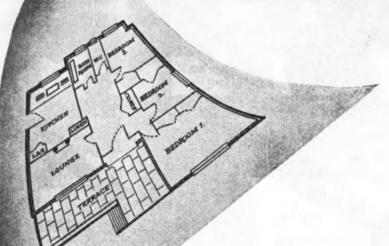
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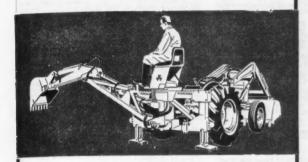
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mixer with
the big
capacity!

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CONCRETE MIXER

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THE LINER CONCRETE MACHINERY CO. LTD.

125, PARK ROAD, GATESHEAD, 8, Phone: 72501. Grams: 'Liner, Gateshead'

Landon Office: Liner House, Lexden Road, Acton, W.3. Phone: ACOrn 8931

Please se	end full details of items marke	q ,X,
☐ CADET MIXER	ROUGHRIDER DUMPER	D PORTASAW
NAME	E TOURS OF B	
ADDRESS		
125	A STATE OF THE PARTY OF THE	COLUMN SALE

Also at

Birmingham, Manchester, Liverpool, Bristol, Leeds, Grantham, Torquay, Edinburgh Glasgow, Dundee, Belfast, etc.





# **VACANCIES FOR CIVIL ENGINEERS**

TUNNELLING CONTRACT. A Civil Engineer is required to work on a large reservoir in Yorkshire. His experience should include section engineer responsibilities on major contracts, and he should have experience of driving large diameter lined tunnels in soft ground and rock. This appointment will mean a stationary base for at least 2 years. **PRODUCTION CONTROL.** This is a new type of post which offers challenging opportunities to a man with a high degree of initiative.

Although based at Head Office, travelling in the U.K. will be involved to undertake short-term assignments on sites

to investigate methods improvements and cost reduction, and to establish standards of performance—all in relation to management control of contracts.

Applicants, preferably aged 26-30, should be Graduate Civil Engineers with at least 2 years site experience; a knowledge of estimating and costing and some training in work study techniques would be advantageous.

Both appointments offer excellent opportunities for a progressive career in an expanding organisation where particular emphasis is placed on the development of staff for senior positions.

COSTAIN

Evening or weekend interviews can be arranged. Please write or telephone (WATerloo 4977) to:-

PERSONNEL MANAGER . RICHARD COSTAIN LIMITED . 111 WESTMINSTER BRIDGE ROAD . LONDON . 3.E.1

# SOKE OF PETERBOROUGH

#### ROADS AND BRIDGES DEPARTMENT.

TENDERS are invited for the SUPPLY and DELIVERY of 55 lin, vd. 36in, dia. SPUN-CONCRETE TUBES (granite aggregate), Reinforced and having Ogee Joints.

Oge Johns days aggregate), Remorced and naving oge johns usiars and Form of Tender, apply to the County Surveyor, County Council Offices, Bridge Street, Peterborough.

Tenders must be forwarded to me, the undersigned, in the envelope provided, bearing no mark or indication as to the sender, not later than 10 a.m. on TUESDAY, 23rd May 1961.

Neither the lowest nor any Tender will necessarily be accepted.

ERIC P. ShitTH.

Clerk of the County Council.

SUPPLEMENT

County Offices. Bridge Street Peterborou

#### COUNTY BOROUGH OF BURNLEY.

#### MAIN DRAINAGE-CENTRAL AREA.

FIXED-PRICE TENDERS are invited for PRESSURE POTNING and GROUTING approx. 500 sq. vd. of 4ft. deep EGG-5HAPED BRICK OUTFALL SEWER. Further details from Borough Engineer, 22:24 Nicholas Street, Burnley. Tenders by 29th MAY, 1961.

C. V. THORNLEY.

# ROROUGH OF RAMSGATE.

# CLIFFSEND AND MANSTON DRAINAGE SCHEME.

CLIFFSEND AND MANSTON DRAINAGE SCHEME.

TENDERS are invited from contractors experienced in sewer construction in residential areas, for the CONSTRUCTION of approx. 13,124 lin; yd. of JURIST CONSTRUCTION OF JURIST CON

K. F. SPEAKMAN, Town Clerk.

Municipal Buildings, Ramsgate. 24th April, 1961.

# ISLE OF AXHOLME RURAL DISTRICT

# WEST BUTTERWICK SEWERAGE SCHEME.

# CONTRACT NO. 1.

CONTRACT NO. 1.

TENDERS are invited for the CONSTRUUCTION of approximately 480 lin. yd. of 6in. and 9in. diameter SEWERS. to the work of 6in. and 9in. diameter SEWERS. The property of 4in. and 9in. diameter SEWERS. SEWERS. The property of 4in. and 9in. diameter SEWERS. SEWERS.

S. W. CHESTER, Clerk to the Council.

The Gables. Epworth. Doncaster. 17th April, 1961.

# FLSTREE RURAL DISTRICT COUNCIL.

# CONSTRUCTION OF MUNICIPAL CEMETERY—RADNOR HALL (FIRST SECTION), ELSTREE, HERTS.

TENDERS are invited from experienced contractors for the CONSTRUCTION of approx. 3,000 sq. vd. of CARRIAGEWAY WORKS in BITUMINOUS MACADAM: 404 lin. yd. SOIL SEWERS: 672 lin. yd. SURFACE WATER DRAINAGE: 850 lin. yd. of WROUGHT-IRON FENCING, GATES, etc., together with the GRADING, LEVELLING and SEEDING of (approx.) Two Acres of BURIAL AREAS, Landscaping and Layout: and the CONSTRUCTION of CEMPTERY BUILDINGS, and ancillary works.

Specification of Construction of Cempter William of Second Construction of Construction of Cempter William of Ce

Council University of the second of a deposit of the payment of a deposit of the payment of a bona-fide Tender not sewithdrawn.

Tenders must be delivered to the undersigned, in a plain sealed envelope endorsed "Municipal Cemetery," not later than Noon gm THURSDAY, 8th June, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. LANCASHIRE.

Clark of the Council.

Council Offices, Shenley Road, Boreham Wood, Herts. 24th April, 1961.

# SOUTH-EAST BRECONSHIRE

# BRANCH WATER MAINS.

TENDERS are invited from experienced contractors for the LAYING of approximately SEVEN MILES of small diameter ASBESTOS-CEMENT, POLYTHENE and RIGID P.V.C. TUBING, and ancillary Works. Plans and Contract documents may be obtained from the undersigned upon payment of a returnable deposit fmade payable to the Board) of £2 2s. The Cooling date is to be first Post on MONDAY, 29th May, 1961.

29th May, 1961.

2 ROUND.

A. E. ROUND, Engineer Clerk

St. John's Mount, Pendre, Brecon. And May, 1961.

#### CONTRACTS

# BOROUGH OF WREXHAM. STAFFORDSHIRE COUNTY COUNCIL ASHFIELD ROAD REDEVELOPMENT.

#### ROADS AND SEWERS.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of a REINFORCED CONCRETE ROAD and the LATING OF KERBING and SEWERS in Drawings and General Conditions of Contract may be inspected, and Specifications, Bills of Quantities and Forms of Tender obtained, from MR. J. M. DAVIES, Borough Engineer and Surveyor, Guildhall, Wrestham am payment of a deposit of £2 2., which we have a surveyor of the contract may be redered, in the envelope provided, must be sealed and delivered to the undersigned not later than 12 Noon an MONDAY, 29th May, 1961.

The Council doos not bind itself to accept the lowest or any Tender.

PHILIP J. WALTERS.

PHILIP J. WALTERS.

Guildhall, Wrexham. April, 1961.

#### CITY OF SALFORD.

# PROPOSED TWO-BAY SUB FIRE STATION AT 443-5 BURY NEW ROAD, SALFORD, 7.

FIRM-PRICE TENDERS are invited for the proposed TWO-BAY SUB FIRE STATION at 443-5 BURY NEW ROAD, Saltord, 7.

WO-BAY SUB FIRE STATION at 443-5 BURY NEW ROAD. Saltord, 7.
Conditions of Contract and Drawings may be inspected at, and Bill of Quantities and Form of Firm-price Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Saltord, 3, an payment of a deposit of £3 3s., which will be returned on submission of a bona-fide Firm-price Tenders, on the prescribed form, sealed in the envelope provided and bearing no other mark or identification, must be forwarded to the TOWN CLERK, so as to be received not later than 10 a.m. MONDAY, 29th May, 1961.
The Council does not bind itself to accept the lowest or any Firm-price Tender.

#### CITY SALFORD. OF

# THREE-STOREY FLATS ON SMALL SITES.

THREE-STOREY FLATS ON SMALL SITES.
FIRM-PRICE TENDERS are invited for the CONSTRUCTION
OF THREE-STOREY ONE-BEDROOM
FLAT LIBEROW.

Contract 1—15 Flats, Medway Close, Salford, S.
Contract 2—18 Flats, rear of 93 Eccles Old Road,
Salord, 6.
Contract shired, ender for one or both Contracts,
but each Contract must be tendered for separately,
Applicants for documents must clearly state for which
scheme(s) they wish to Tender.
Conditions of Contract and Drawings may be
inspected at, and Bills of Quantities and Forms of
inspected at, and Bills of Quantities and Forms of
and Surveyor's Department. Torm, the City Engineer
and Surveyor's Department. Torm, the City Engineer
Apayment of a deposit in respect of each Contract of
payment of a deposit in respect of each Contract of
abona-fide Firm-price Tender not subsequently with-

bona-fide Firm-price Tenuer not drawn.

Firm-price Tender(s), on the prescribed form, sealed in the envelope(s) provided and bearing no other mark or identification, must be forwarded to the TOWN CLERK on as to be received not later than 10 a.m. The Council does May, 1961.

The Council does may firm-price Tender, the council does not be the council does the cou

# NORTHLEACH RUE RURAL DISTRICT

# ANDOVERSFORD SEWERAGE.

COUNCIL.

ANDOVERSFORD SEWERAGE.

The Council invite TENDERS from contractors having experience in similar work, for THIS SCHEME, which consists of the FOLLOWING:

(a) Laying of approx. 1,730yd of 6in. dla. 5.1. ds.5.5. or Concrete Sewers, together with the Construction of relevant Manholes.

(b) The Construction of relevant Manholes.

(c) Laying of approx. 440yd. of 4in. dla. 5.1. and Steel Pipes, as a pumping main.

(d) Construction of a Sewage Disposal Works. consisting of one Balancing Tank, two Settlement Tanks (capacitty 8,530 palls.), two Percolating Filters (300 cu. yd.). two Humis Beds (area 116 sq. 000 palls.), Sludge Drying Beds (area 116 sq. 000 palls.), Sudge Dr

in Ink, amount in the First Post on mount in the First Post on mount in 1961.

The Council do not bind themselves to accept the lowest or any Tender, and will not be responsible for any expenses incurred by those tendering.

A. F. BARRETT, Council.

Council Offices. Northleach, Glos. 25th April, 1961.

# EAST SUFFOLK STANDING JOINT

# ERECTION OF POLICE HOUSE AT KESSINGLAND

Building contractors are invited to apply to TENDER or the ERECTION of ONE POLICE HOUSE at essingland.

Building and Drawings will be sent out on Crecipit of the County Architect, E. J. CUNDLIFFE, A.R.I.S.A. County Hall, loswich, before the 16th MAY. 1961; each must be accurated as the county C

eipt of Tender. Specifications and Drawings will be sent out on th May, for Fixed-price Tenders required by the h JUNE, 1961.

# CONTRACTS

# COUNTY ROADS AND BRIDGES DEPARTMENT.

# CANNOCK-UTTOXETER ROAD, B.5013.

# RECONSTRUCTION OF RUGELEY NO. 3 COUNTY BRIDGE, BROOK SQUARE, RUGELEY.

BRIDGE, BROOK SQUARE, RUGELEY.

TENDERS are invited for the RECONSTRUCTION of the ABOVE BRIDGE, involving Excavation to and Demolition of the Existing Brick Arch, Constant of a Composite Slab Deck (using Prestressed Slab User Constant of Strutted Abutments, having a clear slab of 9t. and a width of 45th. together with Reinstating the Carriageway as necessary.

Applications for Tender documents should be made to the undersigned, to whom Tenders, in plain sealed to the undersigned, to whom Tenders, in plain sealed but endorsed "Rugeley No. 3 of the senders name but endorsed "Rugeley No. 3 of the senders must be returned not later than 10 a.m. on MONDAY, 22nd May, 1961.

T. H. EVANS,

T. H. EVANS, Clerk to the County Council.

# County Buildings, Stafford STAFFORDSHIRE COUNTY COUNCIL

County Buildings, Stafford. May, 1961.

# METROPOLITAN BOROUGH OF

# STREET LIGHTING

TENDERS are invited for the CONVERSION of the FOLLOWING:

(1) Approx. 190 Group "A" Lighting Units from Mercury to 140-W Sodium.

(2) Approx. 242 Group "A" Lighting Units from Mercury to 200-W Linear Sodium;

(3) Group "B" Lighting Units from Mercury to 60-W Sodium; and

(4) For the Erection of approx. 81 Group "A" Seel Columns complete with 200-W Linear Particulars and Form of Tender from the BOROUGH PARTICULARS and Form of Tender from the BOROUGH PARTICULARS and Form of Tender from the BOROUGH S.E.6.

Closing date: 10 a.m., THURSDAY, 25th May, 1961.

# CITY OF ROCHESTER PATTENS GARDENS/CITY WAY FOUL RELIEF SEWER AND OTHER DRAINAGE WORKS.

PATTENS AND OTHER DRAINAGE WORKS.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of approx. 950 lin. yd. of 91n. dia. and 210 lin. yd. of 12in. dia. B.S.S.G.W. FOUL SEWER and ancillary works for Pattens Gardens/City Way Relief Foul Sewer, and also approx. 77 lin. yd. of the dia. dia. and 6in. dia. Foul Sewer Connections to the property of the provings and General Conditions of Contract has be inspected at the Office of JAMES A. PEEL A.M.I.C.E. M.I.Mun.E.. City Surveyor, 66 Maidstone Road, Rochester, during normal working hours. The Form and Conditions of Tender, Special Conditions of Contract, Special Conditions of Contract, Special Conditions of Severy and Conditions of Contract of Special Conditions of Contract of Special Conditions of Tender, Special Conditions of Severy in the Contract of Severy in a plain sealed envelope endorsed Tender for Pattens Gardens/City Way Relief Foul Sewer, must be received by the undersigned Severy in the Contract of the Contract of Contract Office of Contract of Contract of Contract Office of Contract

Guildhall, Rochester, 26th April, 1961.

# RAYLEIGH URBAN DISTRICT COUNCIL EASTERN SEWAGE DISPOSAL WORKS-CONTRACT NO. 2.

TENDERS are invited from exerienced contractors for EXTENSIONS to the existing SEWAGE DISPOSAL WORKS, consisting the contraction of Reinforced Concrete Grit Channels, Circular Settlement, Storman Human Tanks, and Heated Sludge Digestion Tank. a Pumping Station and Concrete Sludge Drying Beds. Percolating Fitters and Boiler Room, the Development of am Effluent Irrigation Area, together with all works incidental thereto, for a design population of the Contract documents will be available about the 10th May, 1961, and the Conditions of Contract, Specification, Bills of Quantities and Form of Tender may be obtained from the Council Engineers, MESSRS, LEMON AND BIZZUMENT COUNCIL COU

Council Offices or at the Office of the South Engineers.

The completed Form of Tender and priced Bills of Quantities are to be delivered to the undersigned, in a sealed envelope endorsed "Tender for Extensions to a sealed envelope endorsed "Tender for Extensions to a sealed envelope endorsed "Tender for Extensions to a sealed envelope endorsed "Tender Council to 2, not later than Noon on MONDAY, 12th June, 1987, not later than Noon on MONDAY, 12th June, 198

C. E. FITZGERALD, Clerk of the Council.

# KENT COUNTY COUNCIL. DARTFORD-MEOPHAM ROAD, B.260.

TENDERS are invited by not later than 26th MAY, 1961. (b) ROAD IMPROVEMENT WORKS at LOCALTACT HILL DAYLORD LOCALTACT OUT HILL DAYLORD FOR STATE OF THE STATE OF T

Tender. G. T. HECKELS,
Clerk of the County Council.

BOROUGHOF LUTON. DEVELOPMENT OF LUTON AIRPORT-PHASE I. DRAINAGE WORKS.

TENDERS are invited from experienced contractors for DRAINAGE WORKS in connection with the ABOVE DEVELOPMENT or the Laying of Foul and The works include for the Laying of Foul and Surface Water Sewers or to a maximum of 27in, diatogether with appurenant works. Tender document from Borough Engineer, Town Hall, Luton, on awment of £2 2s, deposit, returnable on receipt on a bona-fide Tender not subsequently withdrawn. Checues payable Luton Corporation. Withdrawn Checues payable Luton Corporation. Tenders to TOWN CLERK, Town Hall, Luton, by Noon on THURSDAY, 25th May, 1961.

ELDERLY PERSONS' FLATS.

TENDERS are invited for the CONSTRUCTION of 19 BEDSITTING ROOM FLATS and ONE TWO-BEDROOM FLATS and ONE TWO-BEDROOM FLATS and ONE TWO-BEDROOM FLAT IN ONE THREE-STOREY BLOCK, at the junction of the junction o

# Town Hall, Watford. April, 1961. BOROUGH OF MAIDENHEAD.

The COUNCIL invites TENDERS for the FOLLOWING WORKS:—

The COUNCIL invites TENDERS for the FOLLOWING WORKS:—

(a) Cox Green Road Building Plots—Road and Sewer Works—The Construction of 530 in the Control of South of Sout

STANLEY PLATT.

Guildhall, Maidenhead, Berkshire, April, 1961.

#### CARLISLE. CITY O F RECONSTRUCTION OF WILLOW HOLME SEWAGE DISPOSAL WORKS-STAGE 2.

RECONSTRUCTION
DISPOSAL WORKS—STAGE

TENDERS are invited for the ABOVE.
The work comprises the Extension of existing Sedimentation Tanks and their Conversion to Mechanical Desiudging and the Construction of two mew Storm Water Tanks, together with a Detritus and Feed Channel.

Particulars from City Surveyor, 18 Fisher Street.
Closing date, JUNE 5th, 1961.

H. D. A. ROBERTSON,
Town Clerk.

#### OF CARDIFF. CITY

CITY SURVEYOR'S DEPARTMENT. FIXED-PRICE TENDERS are invited for the FOLLOWING:

FIXED-PRICE TENDERS are invited for the FOLLOWING:
Construction of Docks Access Road, Pengam (First Stage), consisting of 27,000 sq. yd. of New Carriageway, 46,000 cu. yd. of Fill.
Condition of Tender, Specification, Bills of Quantities and ancillary works.
Contract may be inspected, and to whom application should be made, accompanied by a deposit of the sum of £5 Sc. Cheques should be made payable to the Cardiff Corporation and crossed "Not Negotlable The deposit will be refunded on receipt of a bonafide Tender or the return of the Contract documents by the closing date.

The deposit will be refunded on receipt of a bonafide Tender will not be considered unless enclosed in plain sealed envelope endorsed "Tender for Contract documents by the closing date.

Tenders will not be considered unless enclosed in plain sealed envelope endorsed "Tender for Contract documents by the closing date.

The develope will not be considered unless enclosed in plain sealed envelope endorsed "Tender for Contract documents by the closing date.

The develope must not bear the mame of, or any the contract date will be identity of the same of, or any the contraction of the same of

NE. 1961.
The envelope must not bear the mame of, or any ark indicating the identity of, the tenderer.
The Council does not bind itself to accept the west or any Tender.

S. TAPPER JONES. Town Clerk.

Coventry Corporation.

Coventry Corporation.

ROAD RESURFACING PROGRAMME, 1961-62.

COVENTRY CORPORATION invite TENDERS for RESURFACING PROGRAMME in HOT ROLLED ASPHALT and anciliary works for 1961-62, approx. area \$3.00 sq. vg.
Documents from CITY ENGINEER, Council House, of payment all £5, returnable on receipt bona-fide Fender by Noon on the 5th JUNE.

#### CONTRACTS

GOVERNMENT OF ADEN.
NEW DEVELOPMENT AREA—SHEIKH OTHMAN.

CONTRACT NO. 3-VILLAGE NO. 1 SEWERAGE.

Applications are invited from civil engineering contractors who will be willing to submit TENDERS for the ABOVE SCHEME. The works included in the Contract comprise state of the contract comprise state of the contract contract comprise state of the contract contrac

House Drainage. The Contract time for completion is 18 months.

The work, which has been designed by MESSRS.

The work, which has been designed by MESSRS.

The work will be the work of the precipital of the precipital of the precipital of the precipital of the works is in Village No. 1, which is part of the New Development Area on the north side of Aden Harbour, near the existing township of Shelkh Othman and is approx. nine miles by road from Steamer Point, Aden.

Tender documents will be forwarded to applicants on or about the 12th May, 1961, and Tenders must be submitted to the Crown Agents by 19th JUNE.

Applications, quoting Ref. EC.479/18, should be submitted immediately to the CROWN AGENTS FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS, 4 Milibank London, S.M.1, together with a cheque for bankers' fratt for £10 which will be returned on receipt of a bona-fibe Tender.

# BOROUGH OF ALDERSHOT. SELECTIVE TENDERING.

The Aldershot Council has adopted SELECTIVE TRODERING.

TENDERING, and consideration is now being given to compiling lists of builders, politic process of the confideration of the compiling lists of builders, politic process of the confideration with works of varying character and value.

Firms who are interested are invited to apply for inclusion in one or more of these lists.

Applications should he made on the forms which applications should he made on the forms which applications should he made on the forms which all the confiderations of the confideration of the co

H. B. SALES. Town Clerk.

Town Hall, Aldershot, 1st May, 1961,

# BOROUGH OF LYMINGTON. PRIVATE STREET WORKS ACT. 1892.

DANIELLS WALK AND GREENMEAD AVENUE.

TENDERS are invited for MAKING-UP DANIELLS WALK and GREENMEAD AVENUE, within the Borough of Contract may be inspected at the Office of Contract may be contained on payment of a sum of £2 2s, which is februrable on receipt of a bona-fide Tender not is februrable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, accompanied by priced Bills of Quantities, in plain sealed envelopes endorsed "P.S.W.—Danielis walk and Greenmead Avenue," must be delivered to the office of the office

Walk and Security and the Infers Post on 1st JUNE, 1961.
The Council does not bind itself to accept the lowest or any Tender.

A L SLATER.

A. L. SLATER. Town Clerk

# EDINBURGH CORPORATION.

TENDERS are invited for the SUPPLY and DELIVERY of ONE MOBILE LOADING SHOVEL. Scoop capacity 11; cu. yd.
Tenderers will be asked to take in part exchange a Fordson Hydraulic Shovel, which may be inspected by arrangement. Tel.: WAW 1517.)
by arrangement. Tel.: WAW 1517.)
by arrangement and form the following the second of t

#### CARDIFF CITY COUNCIL. CITY SURVEYOR'S DEPARTMENT.

CITY SURVEYOR'S DEPARTMENT.

FIXED-PRICE TENDERS are invited for the SUPPLY and DELIVERY of approx. 100 SQUARES of prime quality CANADIAN ROCK MAPLE STRIP FLOORING and also 370 say. 40 of HARDWOOD FLOOR BLOCKS. of selected and nominated Timber.

Moisture content of each at the above must not be less than 9 per cent. or more than 13 per cent. Conditions of Tender and Specification may be obtained from the City surveyor. City 14all. Cardin. Tenders will call on should be mades enclosed in a plain sealed envelope endorsed. Tender for Hardwood Blocks and Strip Flooring," addressed to the undersigned at the City Hall. Cardiff, and sent by Registered post or Recorded Delivery su as the received not later than TUESDAY, the 30th May, 1961.

The envelope must not bear the name or any mark indicating the Identity of the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER JONES.

# City Hall, Cardiff. 24th April, 1961. FAREHAM URBAN DISTRICT COUNCIL.

# PRIVATE STREET WORKS.

PRIVATE STREET WORKS.

TENDERS invited for MAKING-UP ALBERT ROAD.
Peel Common, Fareham (total length approx. 125yd.),
involving Construction of Surface Water Drainage,
Surfaced with Tarmacadam, Footpaths Surfaced with Tarmacadam, Verges, and other incidental works.
Plans may be inspected, and Tender documents
obtained from Engineer and Surveyor, Westbury
Manor, West Street, Fareham, Hants. on payment of
deposit of £2, refundable on receipt of bona-fide
Tender of Tender (in envelope provided) is me by
10 a.m., 25th MAY, 1561; other documents to
Engineer and Surveyor (again in envelope provided)
by same date.

The Council do not bind themselves to accept the
lowest or any Tender.

8. W. RANDS.

B. W. RANDS. Clerk to the Council.

Merton, S Grove Road, Fareham, Hants

# CONTRACTS

# GLAMORGAN COUNTY COUNCIL.

HIGHWAYS ACT, 1959.

TO PUBLIC WORKS CONTRACTORS.

TENDERS are invited for the MAKING-UP of the FOLLOWING STREET:

Unnamed Street adjoining Llanharan Police Station, the principal works comprising: Carriageway, 200 sq. yd.; Footpath, 150
Specification, Bill of Quantities and Forms of Tender, and the station of the station, the works comprising: Carriageway, 200 sq. yd.; Footpath, 150
Specification, Bill of Quantities and Forms of Tender, and be obtained from the County Surveyor, County Hall, Cardiff, on payment of a deposit of \$3 which will be returned (subject to the Condition of Tender) on receipt of a bona-fide Tender and the return of all the documents supplied to the documents supplied to the County Surveyor during normal working hours.

Contractors will be required to pay the recognised facts of wages and to observe the recognised hours of labour.

Sealed Tenders, made out on the prescribed form.

rates of wages and to outer the prescribed form, and accompanied by the priced Bill of Quantities, are and accompanied by the priced Bill of Quantities, are the envelope provided, at the County Hall.

County Hall, addressed to the Clerk of the Glamorgan County Council.

The County Council will not necessarily accept the lowest or any Tender.

Glamorgan County Council, Cardiff, 28th April, 1961.

BOROUGH OF HENLEY-ON-THAMES. CONSTRUCTION OF CAR PARK OFF KING'S ROAD, HENLEY-ON-THAMES.

TENDERS are invited for the CONSTRUCTION of a CAR PARK (approx. 1.9 acres) and Two Small Access Roads of King's Road, Henni of Quantities and Plans, obtainable from the Borough Surveyor on payment of a deposit of Two Guineas (\$2.2s.) which will be returned after delivery of a complete and bona-fide reduced for the manner and at the time stated.

Tenders, in plain sealed envelopes endorsed "King's Road Car Park," must be delivered to the undersigned for the Council does not bind itself in accept the lowest or any Tender.

G. CALDECOTT.

West Hill House, Henley-on-Thames, Oxon. 11th May, 1961.

# BOROUGH OF CAERNARVON.

(a) PURCHASE OF FORDSON MAJOR TRACTOR COMPLETE WITH HYDRAULIC LOADER.
(b) OFFERS IN PART EXCHANGE OR FOR THE DIRECT PURCHASE OF SECOND-HAND FORDSON MAJOR TRACTOR HYDRAULIC LOADER.

TENDERS are invited for the SUPPLY oil a FORDSON MAJOR TRACTOR complete with Hydraulic Loader, primarily for use on a controlled refuse the plant should be suitable for levelling and consolidating approx. 20 tons us refuse per day, and for the Excavation and Earwhing the revenue and consolidating approx. 20 tons us refuse per day, and controlled the suitable for the Excavation and Earwhing to the suitable of a Second-and Sutton Hydraulic Loader/Fordson Major Tractor. Further details of the plant required, and the one of disposal, together with Tender Forms, may be obtained from the Borough Engineer and Surveyor.

Completed Tenders shall be delivered to the undersigned, in a plant sealed envelope endorsed. Tender for "lant—Refuse Tip," by Noon on the 31st MAJ. The Council does not hind itself to accept the

1961.
The Council does not bind itself to accept the lowest or any Tender. J. O. SMITH, Town Clerk.

Swyddfa'r Dref, Caernaryon.

# URBAN DISTRICT COUNCIL OF CORBY ERECTION OF OLD PERSONS' FLATLETS, STUDFALL AVENUE, CORBY.

The above Council invite TENDERS for This WORK.
Comprising a Two-storey Block of 24 Flattes, Inc.
Comprising a Two-storey Block of 24 Flattes, Inc.
Comment of the State of 24 Flattes, Inc.
Copies of the Bils of 'Juantities and Form of Tender
may be obtained from the undersigned, on payment
of a deposit of £3 St. (cheques being made Payable
to the Urban District Council of Corby), returnable
or receipt of the St. (cheques being made Payable
to the Urban District Council of Corby), returnable
or receipt of the St. (cheques being made Payable
to the Urban District Council of Corby), returnable
or receipt of the St. (cheques being made Payable
to the Urban District Council of Corby), returnable
Tenders are to be returned to the undersigned, in
the andorsed envelope provided, not later than 12
Numn on SATURDAY, 10th June, 1961.
The Council do not bind themselves to accept the
lowest or any Tenders

G. B. BLACKALL,
Clerk of the Council.

Council Offices. Corby, Northants. 2nd May, 1961

# ATCHAM RURAL DISTRICT COUNCIL. EAST ATCHAM WATER SCHEME.

EATON CONSTANTINE EXTENSION AND

SUPPLEMENT

# SURREY COUNTY COUNCIL. HIGHWAYS AND BRIDGES DEPARTMENT.

TENDERS are invited for COMPLETION of ROAD-WORKS on ALFOLD-LOXWOOD ROAD (8.2133) at ALFOLD. comprising Realignment, Wideoing, Kerbing-Drainage, Footway Works, etc., approx. 1,300 lin. yd. Documents, obtainable from Coulded B.2133 improvement. B. ALFOLD MAY 1961, to CLERK OF THE COUNCIL. County Hall, Kingston-upon-Thames.

BOROUGH OF SALE.

#### SURFACE DRESSING.

TENDERS are invited for the SURFACE DRESSING of CARRIAGEWAYS and FOOTWAYS, amounting in total to approximately 85,000 sn. vd. Specification, Bills of Quantitis and Form of Tender obtainable on the state of the sta

later than 12 Noon on WEUNESSHIP INCH.

1961.

The Council do not bind themselves to accept the lowest or any Tender.

BERTRAM FINCH. BERTRAM FINCH.

Town Hall, Sale, 1st May, 1961

OF UXBRIDGE. BOROUGH CONTRACT NO. 480.

RECONSTRUCTION OF WINDSOR AVENUE AND GRANVILLE ROAD.

GRANVILLE ROAD.

The Borough Council invites contractors with experience oil similar work and who are willing to TENDER for the ABOVE CONTRACT to submit their names and give full details of such experience ta HAROLD E. G. STRIPP, A.M.I.C.E., Borough Surveyor, 263 High Street, Uxbridge, by the First Post on TUESDAY, the 23rd May, 196 The Works will comprise the Reconstruction of approximately in Lean-mix Concrete with Hot-rolled Asphalt Surfacing, 10,000 sq. vd. of Precast Concrete Paving and Bitumen Macadam Verges, together with Kerbing, Drainage and ancillary Works.

From the names submitted, a selected list of contractors will be chosen and subsequently provided with the Tender documents.

E. RONALD WEST.

E. RONALD WEST. Town Clerk.

Council Offices, 265 High Street. Uxbridge, Middx.

OF YORK.

HIGHWAYS ACT, 1959 (CODE OF 1892). MAKING-UP OF WILLOW GROVE-PRIVATE STREET

MAKING-UP OF WILLOW GROVE—PRIVATE STREET.

TEMPERS are invited for the MAKING-UP of WILLOW GROVE. comprising Surface Drainage. Stone Pitched Foundations and Macadam Surfacing for Carriageway. Footbath in Tarmacadam. Verges, and other incidental Works.

The General Conditions of Contract and Drawings may be inspected at, and the Specification, Bills of other of the undersigned an payment by cheque (made payable to York Corporation) of £2, which will be refunded upon receipt of a bona-fide Tender not subsequently withdrawn.

The completed Form of Yender shall be delivered to the undersigned in the michial printed Tender envelope, sealed and enforce "Private Street—Willow Completed Form of Yender Will on the Completed Form of Yender Street—Willow Completed Form of Yender Street—Willow Completed Form of Yender Will on the Yen

CHAS. J. MINTER. City Engineer, Surveyor and Planning Officer.

7 St. Leonard's Place, York. NIDDERDALE RURAL DISTRICT

# KNAPTON AND DISTRICT SEWERAGE SCHEME.

KNAPTON AND DISTRICT SEWERAGE SCHEME.

TENDERS are invited for LAYING of approximately 7,800 lin, vd. wf gin., 6in. and 4in. SEWERS, with DRAINS, together with Rising Mains and Manholes, and the CONSTRUCTION of TWO PUMPING STATIONS, with the Extensions to the Existing Works, at RUFFORTM, and all ancillary Works.

Plans and Specifications may be inspected at the office of the Consulting Engineer. W. KnoWell.

Quantities may be obtained un payment of a deposit of £4 ds. by cheque, payable to Nidderdale Rural District Council, which will be returned on receipt of a bona-fide Tender not later withdrawn.

Tenders, in plain sealed envelopes "Knapton and District Sewerage Scheme," to reach the undersigned by Noon on the 20th JUNE, 1961.

The Council do not blind themselves to accept the lowest or any Tender.

F. ROGERS. Clerk of the Council.

POOLE AND EAST WATER BOARD. DORSET

# PIMPERNE AND MORETON VILLAGE MAINS

TENDERS, on a FIXED-PRICE BASIS, are invited from competent civil engineering contractors for eXCAVATING and BACKFILLING and LAYING approximately 4,400yd. 6in. 3,400yd. 4in. and 3,100yd. of 3in. SPUN-IRON or ASBESTOS PIPES with Valves, Fittings and other appurtenant Works. All Pipes and Valves, etc., will be supplied by the

All Pipes and Valves, etc., will be supplied by the Board.
The Sites are at Pimperne, near Blandford, and Moreton, near Wareham, Dorset.
Specifications and Bills of Quantities may be obtained from the Engineer and Manager, and Plans inspected at the offices of the Board near the Plans of the Moreton and Plans of the Board near the Plans of the Moreton and Monday, the Sth June, 1961.

RICHARD S. RENDLE, Engineer and Manager.

4 Commercial Road, Parkstone, Poole, Dorset.

#### CONTRACTS

BOROUGH OF NEWCASTLE-UNDER-

SILVERDALE INDUSTRIAL SITE.

#### FENCING

TENDERS are invited for the SUPPLY and ERECTION of 720 lin. vd. of P.V.C. COATED CMAIN-LINK FENCING, 6ft. high, including Concrete Posts and ancillary Works.
Plans may be seen and Tender documents obtained at the office of the Borough Engineer and Surveyor.
Plans may be seen and Tender documents obtained at the office of the Borough Engineer and Surveyor.
Tender forms of the Borough Engineer and Surveyor.
Tender forms of the Borough Engineer and Surveyor.
Tender forms of the Borough Engineer and Surveyor an

C. J. MORTON,

# BOROUGH OF PORT TALBOT.

The Corporation invites TENDERS for the ERECTION of 22 DWELLINGS, consisting of Eight Pairs of Houses Consisting of Eight Pairs of Houses and Consisting of Eight Pairs of Houses and Consisting of Eight Pairs of Houses and Eight Pairs of Houses and Secification can be obtained from G. V. GRIFFITHS, Borough Engineer, Municipal Buildings, Port Talbot, on payment of a deposit of \$2 25... which will be returned on receipt of a bona-fide Tender not the Consisting of the Pairs of the Consisting of the Pairs of the Consisting of the Con

W. KING DAVIES,

Municipal Buildings,
Port Talbot.
28th April, 1961.

B O R O U G H OF RAWTENSTALL.

# CONSTRUCTION OF PLAYING FIELDS AT SHADLOCK COTE FARM, WHITEWELL BOTTOM.

SHADLOCK COTE FARM, WHITEWELL BOTTOM.

TENDERS are invited for the LEVELLING and GRADING. DRAINING, and CONSTRUCTION of PLAYING FIELDS on some nine acres of land near SHADLOCK COTE FARM. Contract documents may be obtained from the Borough Engineer and Surveyor. Town Hall, Rawtenstall, upon payment of £2 25. deposit, which will be returned upon receipt of a barrier of the subsequently withdrawn. Tenders must be resulted to the subsequently withdrawn a plain sealed envelope endorsed undersigned in the sealed envelope endorsed undersigned in the still june. 1961.

The Council do not bind themselves to accept the lowest or any Tender.

(Signed) COLIN CAMPBELL.

Town Hall,

Town Hall, Rawtenstall, Rossendale, 2nd May, 1961

BOROUGH OF HERTFORD.

# CONSTRUCTION OF CAR PARK AT THE POULTRY MARKET, HERTFORD.

POULTRY MANKEL, RENIFORM.

The CORPORATION intend to CARRY OUT the ABOVE SCHEME in the near future, and intend to invite TENDERS for the Carrying out of the work. Contractors with experience of car park construction are now invited to submit their names for inclusion in a selected list which will be considered by the Council. The closing date will be 30th MAY, 1961. The Scheme includes the Levelling of the Car Park Site, the Construction of a 9in. Hardcore Base, together with 3in. of Bituminous Surfacing. The area of the Car Park is approx. 1,900 sq. yd.

A. I. CLOUGH, Town Clerk.

The Castle, Hertford, Herts.

CITY PLYMOUTH. OF

TENDERS are invited for the SUPPLY of the FOLLOWING MILD STEEL:—
2 tons Flat Bars, 2in. x 3<sub>n</sub>in.
10cwt. Flat Bars, 2in. x 5<sub>n</sub>in.
5 tons Round Bars, 12<sub>n</sub>in. dia.
8 tons Round Bars, 12<sub>n</sub>in. dia.
10cwt. Half-round S.E. Bars, 2in. x 5<sub>n</sub>in.
10cwt. Half-round S.E. Bars, 2in. x 5<sub>n</sub>in. x 3<sub>n</sub>in.
2in. x 1<sub>2</sub>in. x 1<sub>n</sub>in.
2in. x 1<sub>n</sub>in. x 1<sub>n</sub>in. x 1<sub>n</sub>in.
2in. x 1<sub>n</sub>in. x 1<sub>n</sub>in. x 1<sub>n</sub>in.
2in. x 1<sub>n</sub>in. x 1<sub>n</sub>in.
2in. x 1<sub>n</sub>in. x 1<sub>n</sub>in. x 1<sub>n</sub>in.

City Engineer's Office, Guildhall, Plymouth.

#### CITY SALFORD. OF

# SUPPLY OF FENCING AND GATES.

TENDERS are invited for the SUPPLY and DEVIVERY of WROUGHT-IRON FENCING and GATES for (a) PEEL PARK, and (b) LOWER KERSAL ALLOTMENTS, in accordance with particulars to be obtained from the Director of Parks, Bulle Hill Park.

obtained from the Director of raina, obtained from the Director of raina, obtained from the Director of raina, obtained from the Director of t

# RAMSBOTTOM URBAN DISTRICT

# STRUCTURAL ALTERATIONS-CIVIC HALL

TENDERS are invited for STRUCTURAL ALTERA-TIONS to the CIVIC HALL. The Tenders are to be on a Lump Sum and Fixed-price Basis. Plans, Specifications and Forms of Tender can be obtained on application to the Engineer and Surveyor. Tenders, enclosed in plain sealed envelopes endorsed "Structural Alterations." should reach me not later than 9.30 a.m. on WEDNESDAY, the 31st May, 1961.

F. BELLIS, Clerk of the Council.

# CONTRACTS

ROROUGH OF MALDEN AND COOMBE

TENDERS are invited for the SUPPLY of the FOLLOWING:
One Dennis Lorry.
One 10cwt. Austin Van.
One Austin 'a-ton Van.
Specification and Form of Tender may be obtained from the Borough Englineer and Surveyor. Municipal Offices. New Mailden, Surrey.
Offices, New Mailden, Surrey.
1361. HAROLD E. BARRETT, Town Clerk.

Municipal Offices, New Malden, Surrey.

# PRESTATYN URBAN DISTRICT

QUOTATIONS Invited for FOLLOWING PLANT.
One Diesel Roller about 2 tons plus ballar, in the process of the proce

SWADLINCOTE URB URBAN DISTRICT

ABBOTS FARM HOUSING ESTATE, NEWHALL.

ABBOTS FARM HOUSING ESTATE, NEWHALL.

The Council invite TENDERS for the ADVANCE PREPARATION WORKS on STAGE 2 of the ABBOTTS FARM TO A COMPANY OF THE PROPERTY OF THE PROPERTY

C. D. HULL, Clerk of the Council.

# URBAN DISTRICT COUNCIL OF

# SURFACE DRESSING

TENDERS are invited for SURFACE DRESSING of prox. 41,000 sq. yd. of VARIOUS ROADS in the

TENDERS 41,000 sq. yd. of VARIOUS ROADS in the approx. 41,000 sq. yd. of VARIOUS ROADS in the District.

Specification and Form of Tender may be obtained Specification and Form of Tenders, Town Mall.

Tyldesley, La Inglain sealed envelopes endorsed Tenders, in plain sealed envelopes endorsed "Surface Dressing." are to be delivered to the undersigned not later than Noon on 31st MAY, 1961.

The lowest or any Tender will not necessarily be accepted.

RICHARD F. WILSON, Clerk of the Council.

RICHARD F. WILSON, Clerk of the Council.

P.O. Box 7, Town Hall, Tyldesley

# WARMINSTER URBAN DISTRICT

SEWAGE DISPOSAL WORKS EXTENSION.

FIXED-PRICE TENDERS are invited for the CON-STRUCTION of ONE SETTLEMENT TANK, ONE HUMUS TANK, two Sludge Beds, and other incidental

HUMUS TANK, two Sludge Beds, and other incidents work.

Tender documents may be obtained from the Council's Consulting Engineers, MESSRS, LEMON BLIZARD, Telford House, Hulse Road, Southampton, on or after Wednesday, the 17th May, upon deposit of a cheque for £5 drawn to the Council. The cheeve will be returned upon receipt of a bona-fide render and the return of all documents lent.

Drawings may be seen at the Offices of the Engineers or at the Office of the Surveyor to the Tenders, with one copy of the priced Bills of Quantities, must be delivered to me, sealed and endorsed "Sewage Works." by Noon on FRIDAY, the 16th June.

The Council does not bind itself to accept the lowest or any Tender. W. H. EDWARDS,
Clerk to the Council. 19 Portway, Warminster, Wilts. 5th May, 1961.

# NARBERTH RURAL DISTRICT COUNCIL. MYNACHLOGDDU WATER SUPPLY.

TENDERS are invited from contractors experienced this class of work, for the FOLLOWING:

(a) Construction of a Spring Impounding Chamber.
(b) Construction of Pumping Station.
(c) Construction of Reinforced Concrete Reservoir (d) Laying of approx. 233yd. of 4m. dia. A.C. Pipees.

(a) Laying of approx. 2339.d. of 4in. dia. A.C. Piloes. 2568.d. of 3in. dia. A.C. and ST. 1.002yd. of 2in. dia. A.C. and ST. 1.002yd. of 2in. dia. A.C. and ST. 1.002yd. of 2in. dia. A.C. and ST. Together with incidental works.

Contractors must give details of similar work carried out by them when they submit their Tender. The Specification and Bill of Quantities of the contractor's retention, may be obtained from the undersigned upon receipt of a deposit cheque for \$3 3s. made rayable to the Rural District Council Narberth, such deposit cheque will be returned upon receipt of a bona-fide Tender.

Drawings may be inspected, by appointment, either brawings may be inspected, by appointment

C. J. H. BEYNON.

Clerk to the Council.

Council Offices, Narberth, Pembs.

# EAST RIDING OF YORKSHIRE

(RE-ADVERTISEMENT.)

LIVERPOOL-LEEDS-HULL TRUNK ROAD, A.63.

# WELTON TO NORTH FERRIBY BY-PASS.

WELTON TO NORTH FERRIBY BY-PASS.

TENDERS are invited from experienced roadworks ontractors for the CONVERSION of approx. 1.6 miles of the existing TRUNK ROAD to DUAL ARRIAGEWAYS.

The works consist of the Construction of approx. 300yd. of Dual Carriageway and 2,000yd. of Single Carriageway. Including Earthworks. Drainage and Kerbing.

and Conditions of Tender, Conditions of Contract, Specification and Bill of Quantities may be obtained from the County Surveyor, County Hall, Beverley, on payment of a deposit of Five Pounds which will be made payable to the East Riding County Council.

Drawings and other relevant details may be examined at the Trunk Roads Office of the County Surveyor.

Surveyor. Westing time during customary office hours. Surveyor.

For the Council, endorsed "Tender for Welton to North Ferriby By-pass," and bearing no mark indicating the sender, are to be delivered to the undersigned not later than a p.m. on MONDAY. Sth June.

Cierk of the County. Council.

THOMAS STEPHENSON, Clerk of the County Council.

County Hall,
Beverley, Yorks,
2nd May, 1961.

BOROUGH OF WORKSOP.

PROPOSED NEW BOREHOLE.

# SUNNYSIDE WATER PUMPING STATION.

SUNNYSIDE WAIER PUMPING STATION.

TENDERS are invited for the DRILLING of a SOREHOLE 21in.-18in. in dia., within the curfilage of
Sunce of Conditions of Contract, Specification, Bill
of Quantities and Form of Tender may be obtained
from the Borough Engineer, Park House, Workson,
upon the deposit of &3 3s. which will be returned
upon receipt of a bona-nde Tender.
Sealed Tentury of the Contract of the Contract

R. C. PHARAOH. Town Clerk.

# BOROUGH OF CAMBERWELL. REPAINTING STREET LIGHTING COLUMNS AND

TENDERS are invited for REPAINTING the FOLLOWING COLUMNS and POSTS in the northern part of the Borough:—
210 Sign Posts.
Tender documents obtainable from BOROUGH ENGINEER, Town Hall, Camberwell, S.E.S. Closing date, 5th JUNE, 1961.

# URBAN DISTRICT COUNCIL OF

VIBRATORY ROLLER.

TENDERS are invited for the SUPPLY and DELIVERY of a VIBRATORY ROLLER, hand guided, never propelled, approx. Towl. Lew eight to have a Petrol Engine, and forward and reverse action. Any further details required may be obtained on application to the Engineer and Surveyor, Town Hall, Tyldesley, Lancs.

Tenders, In Jain sealed envelopes marked Tenders, and the property of the undersigned not later than Noon on 31st NAAY, 1961. The lowest or any Tender will not necessarily be accepted.

RICHARD 5.

RICHARD F. WILSON, Clerk of the Council.

P.O. Box 7. Town Hall. Tyldesley

PENGE URBAN DISTRICT COUNCIL.

# DEMOLITION WORKS.

TENDERS are invited from registered demolition contractors for the DEMOLITION of EIGHT TWO-STOREY DWELLING-HOUSES.
Contract documents may be obtained from the Office of the Engineer and Surveyor, Town Hall, Anerley Road, S.E.20, on payment of a deposit of £2, returnable on receipt of a bona-fide Tender, which is to be returned to the undersigned not later than Noon on the 24th MAY, 1961, in a plain sealed envelope endorsed "Mawthorn Grove Tender."

PERCY J. BUNTING. Clerk of the Council.

Town Hall, Aneriey Road, S.E.20.

# WEM RURAL DISTRICT COUNCIL.

# HADNALL WATER SCHEME.

TENDERS are invited for the PROVISION and LAYING of approx. 1,500yd, of 4in. dia. and 1,100yd, of 3in. dia. CAST-IRON PIPES in the Village of Hadnall, together with the necessary Service Connections, and other ancillary works.

Cooles of the Specification, Bill of Quantities and Cooles of the Specification, Bill of Quantities and Particular Service Connections, and other ancillary works.

Cooles of the Specification, Bill of Quantities and Particular Service Connections, and other ancillary works.

Cooles of the Specification, Bill of Quantities and Particular Service Connections and Service Connect

A. PEARSON, Clerk of the Council.

Council Offices, Wem, Shropshire. Sth May, 1961.

#### CONTRACTS

# BOROUGH OF GILLINGHAM. TWYDALL HAWTHORNE ESTATE.

SECTION III, GROUP "D"-12 BUNGALOWS

SECTION III, GROUP "D"—12 BUNGALOWS.

FIXED-PRICE TENDERS are invited for the ERECTION of 12 BUNGALOWS, comprising One Block of Four, One Block of Five, at PETHAM GREEN, and One Block of Five, at PETHAM GREEN, and Chemister of the Blist of Contract of the Blist of Quantities, Specification and Form of Tender, and may inspect the Drawings and Conditions of Contract at the Borough Engineer's Department during usual office hours on and after 23rd MAY.

Applications should be accompanied by a cheque for Five Guineas (£5 5 5.), made payable to Gillingham of a bona-fide Tender not subsequently with foreign of a bona-fide Tender not subsequently with foreign and the second of the subsequently with foreign of a bona-fide Tender not subsequently with foreign and the subsequently with foreign of a bona-fide Tender not subsequently with foreign and the subsequently with foreign of a bona-fide Tender not subsequently with foreign and the subsequently with the subs

R. P. CROMPTON, Acting Town Clerk.

Municipal Buildings, Gillingham, Kent. 1st May, 1961.

#### OF GOSPORT. ROROUGH RECONSTRUCTION OF OMNIBUS STOPPING AREAS IN DENSE TAR SURFACING.

Tenders are invited for the RECONSTRUCTION of approx. 460 sq. yd. of EXISTING ASPHALT CARRIAGEMY at FOUR OMNIBUS STOPPING AREAS, in TWO COURSE DENSE TAR SURFACING 4/10. thick.

Tender documents are available from the Borough fing the state of the state

13c than the First Post on 113c the Sound of the Sound of

EDWARD ADDENBROOKE, Town Clerk.

Town Hall, Gosport.

# CITY OF BIRMINGHAM.

TO PUBLIC WORKS CONTRACTORS.
INNER RING ROAD—SECTION I, PART III
(HOLLOWAY CIRCUS).

The PUBLIC WORKS COMMITTEE invite TENDERS for a Measure and Value Contract for the FOLLOWING.

(1) Construction of Vehicular Underpass and Prestressed Concrete, and ancillary works, including Electrical Underfloor Heating in Underpass Approaches and Subway.

Underpass Approaches and Subway

(2) Reconstruction and Widening of Evisting

Copies of the Specification, Bills of Quantities and

Forms of Tender may be obtained on payment of

E.2 2s. at the Office of SIR HERBERT J. MANZONI.

City Engineer and Surveyor. Baskerville House. Civic

Centre, Birmingham, I. to whom all cheques should

be made payable. The denosit will be returned on

Plans for Structural Work and Roadworks can be

seen at Rooms 211 and 339, respectively, Baskerville

House.

Plans for Structural ways, respectively, Baskerville seen at Rooms 211 and 339, respectively, Baskerville House.

Tenders, enclosed in the envelopes provided for the purpose, must be sealed and delivered in the Town Clerk's Office (Room No. 121), one of the Structure of the Str

# ABERTILLERY URBAN DISTRICT

# SURFACE DRESSING OF ROADS.

TENDERS are invited for the SURFACE DRESSING (Hot Tar) of approx. 87,000 sq. vd. of ROADS in the Urban Area.

Forms and Conditions of Tender and Specification may be obtained from the Council's Engineer and Surveyor, REGINALD H. EKE. M.I.Mun.E., at the address given below.

Tenders, on the prescribed form, and enclosed in plain sealed envelope endorsed "Tender for Surface Dressing," are to the delivered to me not later than Noon on MONDAY, the 29th May, 1961.

The Council do not bind themselves in accept the lowest or any Tender.

JOHN EVANS.

Clerk of the Council.

Council Offices, Abertillery, Monmouthshire. 3rd May, 1961.

# HORSHAM RURAL DISTRICT COUNCIL.

MAIN DRAINAGE OF TOWER HILL AND CHRIST'S HOSPITAL.

CHRIST'S HOSPITAL.

TENDERS are invited for the ABOVE WORKS. Involving the Construction of 3,245 lin. yd. of 6in-dia. Foul Sewers with 4in. dia. Lateral Drains, a Pumping Station and 470 lin. yd. of 4in. Rising Main, and the Construction of a New Sewage Works to deal with a D.W.F. of 70,000 galions per day. Drawings the Construction of a New Sewage Works to deal with a D.W.F. of 70,000 galions per day. The construction of a New Sewage Works to deal with a D.W.F. of 70,000 galions per day. The sewage works to deal with a D.W.F. of 70,000 galions per day. The control of the Surveyor to the Council at the undermentioned address, during normal office hours, and from whom Specification, Bills of Quantities and form of Tender may be obtained on payment of a bona-fide Fender. Provided, must be received by the sewage of the sewage of the council of the plain envelopes endorsed "Tender—Tower Hill (Christ's Nesotial Drainage." by not later than 2nd JUNE, 1961.

The Council do not undertake to accept the lowest, or any, Tender.

A. W. LAIDMAN.

A. W. LAIDMAN. Clerk of the Council.

#### CONTRACTS

# GOVERNMENT OF NORTHERN

MINISTRY OF HOME AFFAIRS.

TENDERS are invited for the SUPPLY of the FOLLOWING STORES for the Constabulary Forces:

Uniform Clothing.
Greatroats
Leather Equipment.
Tender Forms may be obtained on application to the SECRETARY. Ministry of Home Affairs.
Tomomont, Befast. 4. Applicants abould indicate for which Supply they wish to tender.
Preference will be given to firms on the King's National Roli.

# BOROUGH OF SOUTHGATE. RESURFACING OF ALDERMANS HILL, N.13

CONTRACT NO. 1698

CONTRACT NO. 1698.

TENDERS are invited from specialist firms for the REMOVAL of EXISTING WOOD BLOCK PAVING, and the PROVISION and LAYING of a TWO COURSE HOT ROLLED ASPHALT SURFACING 4in. thick, in accordance with B.S.S. 534:1958.

The approx. area of Carriageway involved is 9,000 sq. vd., and the Contract will also include various ancillary Foundation and other works as necessary. ancillary Foundation and other works as necessary. the Borough Engineer and Surveyor for a copy of the relevant documents.

Sealed Tenders, in the envelope provided, must be received by the undersigned not later than 9 a.m. on MONDAY, the 29th May, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

GORDON H. TAYLOR.

Town Hall,

Town Hall, Palmers Green, London, N.13. May, 1961.

# BOROUGH OF SOUTHGATE. RESURFACING AND RECONSTRUCTION OF

CONTRACT NO. 1697.

TENDERS are invited from specialist contractors for the RESURFACING In BITUMEN MACADAM of approx. 3.500 sq. yd. of CARRIAGEWAY, the Construction of approx. 1,200 sq. yd. of Reinforced Concrete Foundation, together with anciliary Drainage Works.

Contractors wishing to tender should apply the Morough Engineer and Surveyor for a copy of the Sorough Engineer and Surveyor for a copy of the second Engineer and Surveyor for a copy of the received by the undersigned not later than 9 a.m. on MONDAY, the 29th May, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

GORDON H. TAYLOR.

Town Hall.

Town Hall, Palmers Green, London, N.13. May, 1961.

# BOROUGH OF SOUTHGATE.

PROVISION OF FINE COLD ASPHALT OR SIMILAR APPROVED MATERIAL AS WEARING COURSE TO CONCRETE ROADS.

CONTRACT NO. 1694.

# BOROUGH OF SOUTHGATE. PROVISION OF BITUMEN MACADAM WEARING

CONTRACT NO. 1693.

TENDERS are invited from specialist firms for the SUPPLYING and LAYING of approx. 17,000 sq. yd. of 1ip, BITUMINOUS MACADAM WEARING COURSE to FOUR DISTRICT ROADS within the Borough uf

To FOUR DISTRICT ROADS within the borough of the contract also includes for Planing-off where necessary the Existing Road Surfaces, and Various Kerb Paving and other ancillary works.

The contractors wishing to tender should apply to the contractors wishing to tender should apply to the cream to the contractors of the cream that the cream that

Town Hall, Palmers Green, London, N.13. May, 1961.

CHISLEHURST AND SIDCUP URBAN

ERECTION OF PUBLIC CONVENIENCES, SIDCUP. Contractors wishing to TENDER should apply mendiately to ENGINEER AND SURVEYOR. Manor House, Sideup, enclosing £2 2s., refundable on received of a bona-fide Tender nut subsequent of several subsequents with the semistable early lune.

DORKING URBAN DISTRICT COUNCIL

MATERIALS AND SUPPLIES. Dorking, Surrey—SUPPLY of SURFACE DRESSING ATERIALS and APPLICATION of TAR. for U.D.C. stalls ENGINEER AND SURVEYOR, Council Offices, orking, Surrey. Tenders by Noon, MAY 24th.

# LANCASHIRE COUNTY COUNCIL.

TENDERS will be invited from selected firms for the DEVELOPMENT of PLAYING FIELDS, etc., at the FOLLOWING.—

Chorley St. Michaels C.E. Secondary School. Farmworth Harper Green County Secondary School. Heywood R.C. Primary School. Provided From St. Scho

BRENTWOOD URBAN DISTRICT

Builders are invited to apply to me in writing by 19th MAY to be included in a panel of contractors to TEMDER for the ERECTION of 13 HOUSES, 34 FLATS and 22 GARAGES at HUTTON DRIVE, HUTTON. The contract will be controlled by Mr. 1. Laurence Barnard. A.R.I.B.A., of Messrs. L. D. Tomlinson and Pariners, Romford.

CLEMENT BOOTH.
Clerk of the Council.

SUPPLEMENT

# BRIERLEY HILL URBAN DISTRICT

FOUL AND STORM WATER SEWERS-

FOUL AND STORM WATER SEWERS—
KINGSWINFORD.

The Council invite TENDERS for the ABOVE WORK, comprising approx. 650 lin. vd. of 27in. to 36in. dia. Concrete Pipes and approx. 600 lin. vd. of 9in. and 12in. dia. S.G.W. PIPES, together with Precast Concrete Manholes and other ancillary works.

Drawings and Conditions of Contract may be inspected at the Office of the Engineer and Surveyor. Civic Buildings, Brierley Hill, Staffs., where the Special Concrete Manholes and the Engineer and Surveyor. Civic Buildings, Brierley Hill, Staffs., where the Special Concrete Manholes and Staffs. Where the Special Con

# ST. NEOTS RURAL DISTRICT COUNCIL. WATER SUPPLY TO PERRY AND GREAT STAUGHTON.

GREAT STAUGHTON.

TENDERS are invited from suitably experienced contractors for the LAYING and JOINTING of approx. 2.500vd. of 6in. dia. ASBESTOS-CEMENT WATER MAINS with Screwed Joints, together with ancillary works, in the Parish of GRAFHAM.

Specification, 8ill of Quantities and key Plan may be obtained from the Consulting Engless. MESSRS. Which will be returned on the receipt of a bona-hde Tender. Further Drawings may be seen during office hours at the above address.

Tenders, on the loose form and in the envelope provided, should be delivered to the undersigned not later than 10 o'clock in the Forenoon of WEDNES-DAY, the 7th June, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

D. J. DEAR.

Council Offices.
32a New Street.
St. Neots, Hunts.

# ISLE OF MAN HARBOUR BOARD.

WAITING HALL AT DOUGLAS HARBOUR,

The Isle of Man Harbour Board invites TENDERS for the ERECTION of a WAITING HALL (which will form part of new Bossenger with the Compart of Contract of Contract and Plans inspected at, the Office of the Architects, MESSRS. DAVIDSON, MARSH AND CO., and T. H. KENNAUGH, of 16 Athol Street, Douglas, on or after 12 Noon on MONDAY. Bit May, 1961. A deposit of £2.2s. will be required which will be returned on receipt of a bona-fide Tender.

which will be returned on result of the returned on result of the returned on result of the returned of the returned of the returned of the returned out by the tenderer, are to he delivered to the undersigned not later than 2.30 p.m. on MONDAY, 5th June, 1981.

not later than 2.30 p.m. on MONDAY, 5th june, 1961.
The Board dues not bind itself to accept the lowest or any Tender. G. R. KERRUISH. Secretary.

isle of Man Harbour Board, G.P.O. Box 11. Murray House. Douglas, isle of Man. 2nd May, 1961.

# FLINTSHIRE EDUCATION COMMITTEE

TENDERS are invited for the SUPPLY and DELIVERY of CLEANING MATERIALS for the SCHOOLS in the County. Full particulars and form of Tender may be obtained on application to the DIRECTOR OF EDUCATION. County Education Offices, Mold.

# FLINTSHIRE EDUCATION COMMITTEE. TENDER FOR THE SUPPLY OF TOILET ROLLS.

TENDERS are invited for the SUPPLY and DELIVERY of approx. 100 gross 6cz. size TOILET ROLLS to the SCHOOLS in the County for the vær ending July, 1962. Deliveries in lots varying from three dozen to two gross will have to be made £5 individual schools. Samples should be submitted with the quotations. "Tender—Toilet Rolls," should be forwarded to the undersigned by not later than the 29th MAY, 1961.

FLINTSHIRE EDUCATION COMMITTEE

# TENDER FOR THE SUPPLY OF ELECTRIC LAMPS.

TENDERS are invited for the SUPPLY and DELIVERY of approx. 160 dozen ELECTRIC LAMPS to SCHOOLS in the County for the wear ending July. 1962. It will be necessary for the lamps to be delivered in small loss to individual schools.

Tenders, in plain sealed envelopes, endorsed "Tenders, is about be forwarded to the undersigned by not later than the 29th MAY, 1961.

# CONTRACTS

# COUNTY COUNCIL OF DURHAM.

TENDERS invited for SUPPLY of OFFICE PRINTING for all departments of County Council for year commencing 1st July 1961.

Details, and Forms of Tender, returnable by 26th MAY, 1961. Irom undersigned.

G. H. METCALFE.

Director of Education.

Shire Hall, Durham, 1st May, 1961

# GLOUCESTERSHIRE COUNTY COUNCIL. HARTLANDS HILL IMPROVEMENT.

TENDERS are invited for ABOVE WORKS on the London to Fishquard Trunk Road, A.48, 7 miles west of Gloucester, comprising Renewal, Widening and Part Dualling of existing Carriageway, and ancillary works. Documents from County Surveyor, Quay Street, Documents from County Surveyor, Quay Street, Gloucester. Deposit £5, payable to Gloucestershire County Council, refunded if bona-fide Tender, not subsequently withdrawn. Tenders by 10 a.m. on 29th MAY, 1981, GUY H. DAVIS

GUY H. DAVIS. Clerk of the County Council.

COUNTY BOLTON

Shire Hall, Gloucester.

COLINTY BOROUGH OF the COMS TENDERS are invited for the CONSTRUCTION of STREET and SEWERING WORKS in NEW HALL LANE. MEDLEY AVENUE and BACK BENTLEY STREET. Specifications, etc., obtained from the BOROUGH ENGINEER AND SURVEYOR. Town Hall, Bolton, 52 whom Tenders should be forwarded by 10 a.m. on 25th MAY, 1961.

#### ROROUGH OF ROMFORD RESURFACING OF BROXHILL ROAD

TENDERS are invited for the RESURFACING of BROXHILL ROAD for a length of 1.200yd, comprising approx. 2,000 lin. yd. of 9in. wide In-situ Marginal Strip. 1,000 tons of Bituminous Concrete Base Course and 300 tons of Bituminous Gravel Macadam Wearing Course, Ditch Piping, together with various ancillary works.

Contract documents obtainable

works.
Contract documents obtainable from Borough Engineer and Surveyor. Town Hall, Romford, on deposit of a cheque for Two Guineas, returnable on receipt by the TOWN CLERK of a bona-fide Tender, in the envelope provided, by 29th MAY.

C I T Y O F S T. A L B A N S.

# GROUP "A" CONCRETE STREET LIGHTING COLUMNS.

QUOTATIONS are invited for the SUPPLY ONLY of GROUP "A" CONCRETE STREET LIGHTING COLUMNS for an extensive Conversion Scheme. Specification, with Schedule, may be obtained from the City Engineer and Surveyor, 16 St. Peter's Street, Albans. Quotations, in plain sealed envelopes endorsed "Group "A" Lighting," are to be delivered to the undersigned not later than 12 Noon, THURSDAY, the 1st June, 1961.

8. V. ENTWISTLE.

B. V. ENTWISTLE.

38 St. Peter's Street, St. Albans, Herts.

# CHEPSTOW RURAL DISTRICT COUNCIL.

CALDICOT SEWERAGE SCHEME-CONTRACT 1.

CALDICOT SEWERAGE SCHEME—CONTRACT 1.

The Chepstow Rural District Council will shortly invite TENDERS for the ABOVE SCHEME, consisting of the FOLLOWING WORKS:

500yd. of 18in. and 21in. dia. Concrete Pipes and Short Sections of Connections in Gravity Sewers: Caldicot West Main Fumping Statistics of Connections in Gravity Sewers: Caldicot West Main Fumping Statistics of Connections in Gravity Sewers: Caldicot West Main Fumping Statistics of Connections in Gravity Sewer Consisting of 670yd. of 30in. dia. Castiron Pipes in Rising Mains; Outfall Sewer consisting of 670yd. of 30in. dia. Concrete Pressure and Castiron Pipes, including 160yd. supported on bents formed by twin in-situ piles at 9ft. centres behind saa wall, and 310yd. partly in trench through sea shore below high water mark, supported on bents formed by twin precast piles at 12ft. centres, together with Access Roads, Water Services, and other ancillary works.

The necessary Application Forms for the contact documents, on which must be inserted details of experience in this type of work together with the obtained on request from the Consulting Engineers. MESSRS. THOMAS AND MORGAN AND PARTNERS. 23 Gelliwastad Road. Pontypridd, the forms to be completed and received by the Engineers not later than Noon on MONDAY. St June. 1961.

THOS. T. BIRBECK.

Clerk of the Council.

# NORTH BEDFORDSHIRE WATER BOARD.

KEMPSTON TRUNK MAIN

KEMPSTON TRUNK MAIN.

FIXED-PRICE TENDERS are invited for the FOLLOWING CONTRACTS in connection with the Bedford-Kempston Trunk Main:

CONTRACT "In and 3.500vd. of 6in. Bitumen Sheathed Soun-iron Pipes with Tyton Joints, together with ancillary works.

CONTRACT "B' "—crossing of the Bedford-Kettering main railway line by 18in. Steel Main to be thrust bored.

CONTRACT "C'—crossing of River Great Main to be thrust bored.

CONTRACT "C'—crossing of River Great Great Contractors tendering should have experience of similar works, and for Contracts "B" and "C." only contractors experienced in this specialist work will be considered. Ender document may be obtained from the Tender document may be obtained from the Tender document may be obtained from the Board. Morth Bedfordshire Water Board. Mill Street. Bedford, on payment of a deposit of Five Guineas for each Contract. The deposit will bit returned if a bona-fide Tender is submitted and not subsequently withdrawn. Cheques should be made payable to the North Bedfordshire Water Board. Tenders, in plain spaled envelopes endorsed "Tender Contract.—, for Kempston Water Main," should be made payable to the North Bedfordshire Water Board. Town Hall, Bedford, by 10 a.m. on FRIDAY, 9th June, 1961.

Town Hall, Bedford.

Town Hall, Bedford, 2nd May, 1961

#### CONTRACTS

BOROUGH OF SAINT IVES (HUNTS.). WATER SUPPLY IMPROVEMENTS.

S.63-CONTRACT 3.

TO CIVIL ENGINEERING AND PUBLIC WORKS

The above Council are prepared to receive TENDERS from experienced contractors for the CONSTRUCTION of approx. 1,500 lin. vd. of 8in. dia. S.I. WATER Particulars and Specifications may be obtained, and Plans may be inspected, at the Offices of the Council's Consulting Engineers, MESSRS. HOWARD HUMPHREYS AND SONS, West Street, Epsom, Surrey Cor inspected at the Council Offices), on and from Wednesday. 10th May, 1961. until Friday, 26th Wednesday, 10th May, 1961. until Friday, 26th May, 26

be returned.

The framers are to be on the official form and are to be delivered to the undersigned, in sealed envelopes to the undersigned, in sealed envelopes to the framer of Wates Sundant Provinces (5.63 contract 3)." but bearing no name or one mark indicating the sender, not later than Noon on WEDNESDAY, 7th June, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN D. A. CROMPTON

JOHN D. A. CROMPTON,

Town Hall, St. Ives, Hunts, May, 1961.

BOROUGH OF KEIGHLEY

# BOROUGH ENGINEER'S DEPARTMENT.

BOROUGH ENGINEER'S DEPARTMENT.

TENDERS are invited for the PROVISION and APPLICATION of REFINEE TAR and or BITUMEN to TOTAL AND THE TAR A

# MANCHESTER CORPORATION

HAWESWATER AQUEDUCT THIRD PIPELINE. CONTRACT ND CP.

TENDERS are invited for the MANUFACTURE. SUPPLY and DELIVERY of CAST-IRON PIPES and SPECIALS. Sin., Sin., Sin. and 12in. dia. to British Standard Specifications, and 12in. dia. to British Standard Forms Chandler Forms Chandler Forms Chandler Forms Chandler Form the SECRETARY, Waterworks Offices, Town Hall, Manchester, 2.

MANCHESTER CORPORATION

HAWESWATER AQUEDUCT THIRD PIPELINE. CONTRACT NO. H.V.6.

TENDERS are invited for the MANUFACTURE, SUPPLY and DELIVERY of Electrically operated Sain. dia. PENSTOCKS. 30in. dia. SUICE VALVES. OPERATING GEAR and ACCESSORIES. etc. Tender Forms (returnable by 30th MAY, 1961), Secification and Conditions obtainable from the SECRETARY. Waterworks Offices. Town Mail, Manchester. 2.

MANCHESTER CORPORATION

CONTRACT NO. H.V.7.

TENDERS are invited for the MANUFACTURE. SUPPLY and DELIVERY of 24in., 8in., and 3in. dia. SLUICE VALVES and 6in. dia. DISCHARGE VALVES. etc.
Tender Forms (returnable by 30th MAY, 1961).
Specification and Conditions obtainable from the SECRETARY, Waterworks Offices, Town Hall, Manchester, 2.

# MANCHESTER CORPORATION WATERWORKS.

HAWESWATER AQUEDUCT THIRD PIPELINE.

CONTRACT NO. H3P/VP.

TENDERS are invited for PILING WORK on line of GREENBANK SIPHON. The work includes 46 Rein-forced Concrete Bored Piles, approx. 1,110 lin. ft. forced Concrete Bored Files, approx. 1,110 Into total length.
Specification, Conditions and Tender Form (returnable by 30th MAY, 1961) obtainable from the SECRETARY. Waterworks Offices, Town Hall, Manchester, 2.

MANCHESTER CORPORATION WATERWORKS.

DUNHAM PARK RESERVOIR. CONTRACT D.P.1.

TENDERS are invited for the MANUFACTURE. SPECIAL CASTINGS of 10in., 12in., 18in. and 24in. dia. to British Standard Specification. Tender forms (returnable by 30th MAY. Schedule and Conditions obtainable from the Section Chemical Conditions of the Marchester. 2. Art., Waterworks Offices, Town Hall, Manchester. 2.

MANCHESTER CORPORATION

TENDERS are invited for the SUPPLY and DELIVERY of Diesel-engined ROTARY AIR COMPRESSORS at

follows:—
Seven 125 cu. ft. min. output on towing trailers.
One 150 cu. ft. min. output—vehicle mounted.
Tender Forms (returnable by 30th MAY. 1961).
Specification and Conditions obtainable from the SECRETARY, Waterworks Offices. Town Hall.
Manchester, 2.

# COUNTY OF DORSET. POLICE CLOTHING.

The DORSET STANDING JOINT COMMITTEE invite
TENDERS for the SUPPLY of CLOTHING, including
Shirts. Collars and Thes, for the Dorset Constabulary.
Forms of Tenders showing types and approx. quantities
required, may be addulated from the Chief Constable.
Constablus Headquarters, Dorchester.
Sale Tenders, endorsed "Tender for Police Clothingsust be received by me by the 19th MAY, 1961.
The Committee do not bind themselves to accept
the lowest or any Tender.

A. C. TEMPLEMAN.

Clerk of the Standing Joint Committee.

Dorchester.
1st May, 1961.

COUNTY BOROUGH OF DEWSBURY

COUNTY BURUUGH OF DEWSBURY.

TENDERS are invited from building contractors for the RECTION of a HALL DINING ROOM and KITCHEN at THORNHILL LEES C.E. INFANTS' CHOOL.

Bills of Quantities and Forms of Tender may be obtained and Plans and Conditions of Contract seen at the Office of the Borough Architect and Buildings surveyor. From Hall Dewsled Tenders.

Tenders.

Tenders.

Tenders.

Tenders.

Tender Thornhill Lees C.E. Infants' School," must render to mee by Noon MONDAY, 12th June, 1981.

A. NORMAN JAMES. Town Clerk.

Town Hall, Dewsbury, 2nd May, 1961.

COUNTY BOROUGH OF WEST HAM.

#### EDUCATION COMMITTEE.

TENDERS are invited for the FOLLOWING, in respect of West Ham Schools, for a period of six months commencing 1st July, 1961:
Laundry Work.
Needlework Materials and Haberdashery.
Forms of Tender, to be returned not later than 31st MAY, 1961, may be obtained from the undersigned.
No Tender will be received except in a plain sealed envelope which bears the words "Tender for ——," but shall not bear any name or mark indicating the sender.

R. OPENSHAW

R. OPENSHAW, Chief Education Officer.

Education Department, 95 The Grove, Stratford, E.15.

BOROUGH OF FINCHLEY.

PROVISION AND ERECTION OF CHAIN LINK AND CLOSE-BOARDED FENCING AT SEVERAL PUBLIC OPEN SPACES.

TENDERS are invited for the PROVISION at ERECTION of PLASTIC-COVERED CHAIN LINK, son

RECTION of PLASTIC-COVERED CHAIN LINK, some on evaluation and some on existing concrete standards, and cLOSE-BOARDED FENCING at a NUMBER OF OPEN SPACES.

The Specification and form of the standards and some on existing standards, and form of the specification and form of the standards at the obtained standards, and form of the standards and form of the standards and surveyor 290 Regents Park Road, Finchley, N.3. The Surveyor 290 Regents Park Road, Finchley, N.3. The Surveyor 290 Regents Park Road, Finchley, N.3. The Council does not bind itself to accept the lowest or any Tender.

R. M. FRANKLIN,

R. M. FRANKLIN.

Municipal Offices, Finchley, N.3.

BOROUGH OF UXBRIDGE.

CONTRACT NO. 481.
COLNEDALE ROAD, UXBRIDGE.
MAKING-UP UNDER HIGHWAYS ACT, 1959

TENDERS are invited from experienced contractors for MAKING-UP the ABOVE STREET. The works comprise: Re-laying Existing Kerbs; Reshaping the Carriageway, Making-up with Hardcore and Laying approx, 950 sq. vd. of Bitumen/Tarmacadam Surfacing; Laying approx, GBO sq. vd. of Situmen Tarmacadam Footway Surfacing; Constructing Garage Crossings, and Surface Water Drainage Works-Form of Tender, Specification and Billio of STRIPP, A.M.I.C.E., Borough Surveyor, 265 High Street, Uxbridge, and should be returned by First Post on MONDAY, 29th May, 1961.

E. RONALD WEST, Town Clerk.

265 High Street, Uxbridge, Middx.

BOROUGH OF ALDERSHOT.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERMENTIONED PETROLEUM OILS during the forthcoming 12 months, commencing June, 1961:—

the forthcoming 12 months, commencing june, 1961:—
Petrol (Commercial Grade).
Oil, Auto-Diesel,
Tenders, on forms which are available from the
Tenders, on forms which are available from the
Stoom of the envelope provided, endorsed
"Tender"—Petroleum," not later than Noon, MONDAY,
the 29th May, 1961.

H. B. SALES, Town Clerk.

URBAN DISTRICT COUNCIL OF

ROAD IMPROVEMENT.

BANSTEAD ROAD (8.280), PURLEY.

The Council invite TENDERS for the ABOVE IMPROVEMENT, which will include Accommodation and Footway Recently the ABOVE IMPROVEMENT, which will include Accommodation and Footway Recently and Footway Recently and Footway Recently Recently Improvement of the Council Offices, Purley, Surrey, on payment of a deoosit of £3 3s, which will be refunded on receiv of a bona-fide Tender and return of documents supplied. The council Council

ERIC F. J. FELIX.
Clerk of the Council.

#### CONTRACTS

MIDDLESEX COUNTY COUNCIL. EAST MIDDLESEX MAIN DRAINAGE.

CONTRACT E.M.S.12.

CONTRACT E.M.S.12.

TENDERS are invited for the CONSTRUCTION of TWIN SLUDGE FUNDING MAINS in the vicinity of ENFIELD. Med Pumping Mains in the vicinity of ENFIELD. Med Pumping Mains in the vicinity of Twin Mains will consist of 12in, dia, Cast-Iron Spigot and Socket Pipes with Flexible Joints, the combined length being approx. 11.800 lin. vd. The works will also include the Construction of 10 Reinforced Concrete Valve Chambers. Will be available on 19th May. 1961.

Concrete Valve Chambers.

On May 1961.

On WATSON, MM.I.C.E. 67 To AND D. M. WATSON, MM.I.C.E. 67 To a depose of the misser. S. W.1. upon payment of a depose of the misser. S. W.1. upon payment of a depose of the misser. S. W.1. upon payment of a depose of the misser of the

KENNETH GOODACRE, Clerk of the County Council.

Guildhall,
Westminster, S.W.1.

BOROUGH OF MITCHAM.

PRIVATE STREET WORKS.

(A) CEDARS AVENUE, MITCHAM: AND

(B) LILIAN ROAD (COMPLETION OF),

S.W.16.

TENDERS are invited for the MAKING-UP of the ADOVE TWO STREETS with Macadam on Hardcore Carriageways. Kerbing, Paving, and incidental works. Tender documents may be obtained from the Brender documents was because of the Adove the Adove

R. H. WHITE, Town Clerk.

Town Hall, Mitcham. 3rd May, 1961.

BOROUGH OF PONTEFRACT.

GALLOWS HILL AND HILLCREST AVENUE. SEWERAGE.

J. F. ROOK. Town Clerk.

Municipal Offices, Pontefract.

WIRRAL URBAN DISTRICT COUNCIL. CONTRACT NO. 295.

TENDERS are invited for the REPAINTING of TWO GROUP "A" and 137 GROUP "B" TYPE METAL STREET LAMP COLUMNS in VARIOUS ROADS in the Urban District.

Cooles of the General Conditions of Contract, Specification and Form of Tender may be obtained from the Engineer and Surveyor, Council Offices, Tenders, in plain envelopes endow

wall. Fenders, in plain envelopes endorsed "Repainting— eet Lamp Columns," to he delivered to the under-ned before 10 a.m. on SATURDAY, the 3rd June

signed before 10 a.m. on actions 1961.

The Council does not bind itself to accept the lowest or any Tender received.

W. F. ROBERTS. Clerk of the Council.

THE URBAN DISTRICT COUNCIL OF

TRUNK SEWER-CONTRACT NO. 2.

PRELIMINARY SEWAGE TREATMENT.

PRELIMINARY SEWAGE TREATMENT.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of a SEWAGE DISPOSAL PRELIMINATION of a SEWAGE DISPOSAL PRELIMINATION of a SEWAGE DISPOSAL PRELIMINATION of SEWAGE DISPOSAL PRESENTATION of A SEWAGE DISPOSAL PRESENTATION OF A SEWAGE DISPOSAL PRESENTATION OF A SEWAGE DISPOSAL OF A SEWAGE DI

The Town Hall, Fabian Road, South Bank, Middlesbrough, 3rd May, 1961.

#### CONTRACTS

COUNTY COUNCIL OF THE COUNTY OF

ROADS AND LIGHTING DEPARTMENT.

EDINBURGH-GLASGOW TRUNK ROAD (A.8) CONTRACT NO. 7-RECONSTRUCTION BETWEEN BAILLIESTON AND NEWHOUSE.

It is proposed to invite TENDERS for the ABOVE ROADWORKS, comprising the Reconstruction of the Trunk Road to Dual Carriageway standards, for a length of approx, six miles, and Construction of Three Grade-separated Junctions, together with extensive Alterations to Roads Joining the Trunk Read. The Alterations to Roads Joining the Trunk Read. The Bridges of Filler-Joist type, and other structures, the Bridges of Filler-Joist type, and other structures, the Construction of One New Carriageway, and Reshaping the Existing Carriageway, including all the necessary Earthworks, Drainage, Fencing and Asphalt Surfacing.

Contractors desiring to offer are requested to apply and the Constructions desiring to offer are requested to apply and the Contractors desiring to offer are requested to apply and the Contractors desiring to offer are requested to apply and the Contractors desiring to offer are requested to apply and the Contractors desiring to offer are requested to apply a contractors desired to the list of contractors to whom Contract documents may be issued.

Lanarkshire House.

Lanarkshire House, 191 Ingram Street, Glasgow, C.1. May, 1961.

BOROUGH OF SAINT IVES (HUNTS.).

HOUGHTON ROAD SEWER.

5.30 CONTRACT 2.

TO CIVIL ENGINEERING AND PUBLIC WORKS

The above COUNCIL are prepared to mechan TENDERS from experienced contractors for the CONSTRUCTION experienced contractors for mail dia. Factor of the Council of the Council of Consulting Engineers, MESSRS. HOWARD HUMPHREYS AND SONS, West Street, Epsom for inspected at the Council Offices), on and from Monday, 15th May, 1961, until Friday, 26th May, 1961, between the Council of the Council has reached a decision, will be returned to the St. Ives Borough Council, which deposit, after the Council has reached a decision, will be returned to each contractor who has submitted a bona-fide Tender which had not subsequently been withdrawn, and has returned all documents and Drawings.

Tenders are to be un the official form and are to be endorsigned, in sealed envelopes endorsed "Tender Undersigned, in sealed envelopes endorsed "Tender Undersigned, in sealed envelopes endorsed "Tender Langer, not later than Bloom on WEDNESDAY. 7th June, 1961.

The Council do not bind themselves to accept the lowest of any Tender.

JOHN D. A. CROMPTON.

Town Hall,

Town Hall, St. Ives, Hunts. May, 1961.

BOROUGH OF KIDDERMINSTER. SURFACE DRESSING OF CARRIAGEWAYS.

TENDERS are invited for the SURFACE DRESSING of approx. 101.000 sq. yd. of CARRIAGEWAYS within the Borough. Tender documents may be obtained from the Borough Engineer and Surveyor, 110 Mill Street. Kidderminster, on payment of a deposit of £2. returnable on receiot of a bona-fide Tender. Tenders are to his returned to the undersigned not later than the 29th MAY. 1361. The Council does not bind fiself to accept the lowest or any Tender.

JOHN L. EVANS. Town Clerk.

CITY OF WORCESTER. KERBING, CHANNELLING AND FOOTWAY WORKS.

FIXED-RATE TENDERS are invited for the ABOVE ROAD MAINTENANCE WORKS at TWO LOCATIONS. and comorising the FOLLOWING:

1.900 lin. yd. af Kerb and Channel.

1.100 sq. yd. of Slab Paving to Footways.

3.100 sq. yd. of Slab Paving to Footways.

5.000 sq. yd. of Bitumen Macadam Surfacing to Footways.

Gotways.

6. Bitumen Macadam Surfacing to Carriageway Haunches, together with other appurtenant works.

Documents, obtainable from the City Engineer and Surveyor, 22 Bridge Street, Worcester, upon payment of a Two Guinea decosit which will be returned on receipt of a bona-fide Tenders, in envelope provided, to be posted to reach the understand ont later than MONDAY, the Sthumber of the City Council do not blind themselves to accept the lowest or any Tender.

BERTRAM WEBSTER,
Town Clerk.

LEATHERHEAD URBAN DISTRICT

TENDERS are invited for SURFACE WATER DRAINAGE WORK in OAKLAWN ROAD, Leather-head, including 500 lin, vd. of Porous Piping in Ditches and Surface Water Guilles. Documents obtainable from the Engineer and Surveyor's Department, Red House, Leatherhead, Tenders to be returned by Nose, Leatherhead, 1961. Clerk of the Council Offices.

URBAN DISTRICT OF WESTHOUGHTON. BOLTON ROAD-ASPHALT SURFACING.

TENDERS are invited for the SUPPLY and LAYING of assirors. 5.700 sisser, vd. of HOT ROLLED ASPMALT SURFACING on Bolton Road (from junction with Park Road to Cow Lee Bridge). Westhoughton, Particulars for tendering from the Surveyor, Town Hall, Westhoughton, Tenders, in plain sealed envelopes addressed to the CLERK OF THE COUNCIL, Town Mall, Westhoughton, Bolton, Lancashire, bearing the withoughton, Bolton, Lancashire, bearing the withoughton of the Council of the Cou

SUPPLEMENT

# COUNTY BOROUGH OF NEWPORT.

TENDERS are invited for the SUPPLY and DELIVERY
of the FOLLOWING:— vd. Diesel Engine Compression
One 2. vd. Diesel Engine Compression
One 18 cu. vd. Diesel Engine Dual Tip Refuse
Collection Vehicle.
One 14/18 cu. vd. Diesel Engine Fore-and-aft
Refuse Collection Vehicle fitted with Power
Press and Hygienic Shutters.
One Hydraulic Tipping Vehicle.
Prices for the above-mentioned vehicles to
include for painting and lettering to
instructions.

rrices for the above-mentioned vehicles to include for painting and lettering to instructions.

One Refuse Control Crawler Tractor.

One Diesel Mechanical Shovel, capacity of bucket

One 14/10 Diesel Concrete Mixer.

One Cement Silo, 10 tons capacity.

One 4in, Centrifugal Diesel Pump, suitable for towing by motor vehicle.

One Mechanical Vibrating Hammer.

Tenders and full Specifications, time required for delivery, etc., submitted in plans scaled envelopes, suitable for the control of the contr

# ROLLER SKATING PAVILION—KING GEORGE'S

TENDERS are invited for the SUPPLY and ERECTION of a SECTIONAL TIMBER BUILDING measuring 24ft x 18ft, with Cedar Cladding, Internal Linings and Partitions, etc., complete upon a Prepared Foundation.

Foundation. Contract documents obtainable from the Borough Engineer and Surveyor, Town Hall, Romford, on deposit of a cheque for £2 2s., returnable on receipt by the TOWN CLERK of a bona-fide Tender, in the envelope provided, by 26th MAY.

# BOROUGH OF ROMFORD.

# CONSTRUCTION OF FOUR TENNIS COURTS-

TENDERS are invited for the CONSTRUCTION of FOUR HARD TENNIS COURTS at CENTRAL PARK, HAROLD HILL, Romford.

Contract documents obtainable from the Borough Engineer and Surveyor, Town Hall, Romford, on deposit of a cheque for £2 2s., returnable on receipt by the TOWN CLERK of a bona-fide Tender, in the envelope provide, by 29th MAY, 1961.

# BOROUGH OF ROMFORD. LAND DRAINAGE WORKS-BEDFORDS PARK.

TENDERS are invited for LAND DRAINAGE WORKS
TWO EXISTING SOCCER PITCHES at THIS PARK
emprising about 1,650 lin. yd. of Drain Pipes, and

comprising about 1,650 lin. yd. or or the Borough and light was the state of the st

# BOROUGH OF ROMFORD. CHAIN LINK FENCING—LAWNS PARK.

TENDERS are invited for the SUPPLY and ERECTION of about 250 lin. vd. of CHAIN LINK FENCING on Angle-iron Standards, 10ft. high together with ancillary works.

Contract documents obtainable from the Boroush Contract documents obtainable from the Boroush Engineer and Surveyor. Town returnable on receipt by the OWN CLERK of a bona-fide Tender, in the envelope provided, by 26th MAY.

# BOROUGH OF SUTTON COLDFIELD.

# MAKING-UP OF CROWN LANE.

TENDERS are invited for the MAKING-UP of CROWN LANE. The works consist of Kerbing, Paving, Resurfacing of approx. Z.400 so. yd. of Carriageway. and the Provision of Surface Water Drainage. Tender documents may be obtained from the Borough Surveyor, Council House. Sutton Coldfield, an payment of a deposit of £2, which will be returned to bona-fide tenders, and should be returned to the undersigned by Noon. THURSDAY, May who inspected at the Borough Surveyor's Office during normal office hours.

J. P. HOLDEN, Town Clerk.

# Council House, Sutton Coldfield

#### CITY OF PLYMOUTH.

# MOTOR MOWERS.

MOTOR MOWERS.

TENDERS are invited for the SUPPLY and FREE DELIVERY of the FOLLOWING to PRINCE ROCK DEPOT, M. ALD THE PRINCE ROCK DEPOT, M. ALD THE PRINCE ROCK DEPOT, M. ALD THE PRINCE ROCK BAIRNESS AND THOUGH PLATES.

One 30in, Dennis Mower, complete with Grass Box, Balance Bars and Throwing Plates.

Three Allen Rotary Sickles, 4-stroke, two-speed drive, special long axies and twin wheels.

No Tender will be received except in a plain sealed envelope the property of the prince of the pr

No official refluer rounds
Issued.
The Corporation reserve the right to order whole or part of the order.

#### THE URBAN DISTRICT COUNCIL OF ABERDARE

# CONCRETE PATHS

TENDERS are invited for REPLACING TARMACADAM PATHS at 148 COUNCIL HOUSES at
TARM TARMS AT 148 COUNCIL HOUSES at
TARM TARMS AT 148 COUNCIL HOUSES AT
WITH CONCRETE PATHS
Specifications and Forms of Tender may be obtained
from the Engineer and Surveyor, Vestry Hall,
Aberdare.
Tenders, in plain sealed envelopes bearing no mark
or indication of the sender, but endorsed "Concrete
Paths," must reach me an or before FRIDAY, 9th
june, 1981.

D. G. JAMES, Clerk of the Council.

# Town Hall, Aberdare, 4th May, 1961.

#### CONTRACTS

# COUNTY BOROUGH OF IPSWICH.

TENDERS are invited for the SUPPLY to various or poration establishments of the FOLLOWING during the period commencing 1st June, 1961:—
Uniforms, Clothing, Drapery, Boots and Shoes, Cleaning Materials and Ironmongery, Cleaning Materials and Ironmongery, Tenders Forms and Surphy Progression 1981.

ronmongery.
Forms and further particulars may be rom the Town Clerk's Office, Town Hall,

obtained the following the fol

# J. C. NELSON. Town Hall,

# BOROUGH OF WANSTEAD WOODFORD. AND

# EASTERN AVENUE HOUSING SITE-

FIXED-PRICE TENDERS invited for the ABOVE. comprising Laving approx. 4B0vd. Glazed Stoneware and Spun-iron Sewers 9in. and 12in. dia., 1,900 sn. yd. of Reinforced Concrete Carriageway, and ancillary works.

Contract documents from BOROUGH ENGINEER Municipal Offices, High Road, E.18, where Plans may

Municipal Offices, High Road, E.18, where Plans may be inspected.
Tenders, sealed in envelope provided, and endorsed "Tender for Eastern Avenue Housing Site—Roads and Sewers," to be delivered by THURSDAY, 25th May, 1961.
The Council Choes not bind litself to accept the lowest or any Tender.

# BOROUGH OF WORKSOP.

FIRM-PRICE TENDERS are invited from bona-fide building contractors for the ALTERATION OF, and ADDITION TO, PUBLIC OFFICES at PARK HOUSE. PARK STREET, Workson becification may be obtained Copies of the lan and neer. Park House. Workson, upon payment of a deposit of £3 5s. which will be refunded upon receipt of a bona-fide Tender. Tenders, in sealed envelopes endorsed "Public Offices," must reach the undersigned not later than Noon on MONDAY, the 5th june. 1961.

The lowest or any Tender will not necessarily be accepted.

RIESCEL C. BLADAOU

RUSSELL C. PHARAOH.

# BOROUGH OF WORKSOP.

# PROPOSED CONSTRUCTION OF 9IN. DIA. SURFACE WATER SEWER.— BRIDGE PLACE, WORKSOP.

TENDERS are invited from experienced civil engineering contractors for the CONSTRUCTION of a NEW SURFACE WAY for SEWER 9.n. in dia, and apply the centre of the town.

Plans may be inspected, and Conditions of Contract, Specifications and Bills of Quantities may be obtained, from the Borough Engineer, Park House, Worksop, upon payment of a deposit of £5 5s, which will be refunded upon receipt of a bona-fide Tender.

Tenders, in envelopes provided, must be delivered to the undersigned not later than Noon on MONDAY, the 5th June, 1961.

The lowest or any Tender will not necessarily be accepted.

RUSSELL C. PHARADH

# RUSSELL C. PHARAOH,

#### V OF LEICESTER. CITY DEMOLITION AND CLEARANCE WORKS.

COMPULSORY PURCHASE ORDER, 1959.

LEICESTER CORPORATION AREAS NOS. 231 & 232.

FIXED-PRICE TENDERS are invited from experienced contractors for the DEMOLITION and CLEAR ANCE of PROPERTIES in CURZON STREET and URGON STREET

JOHN L. BECKETT, M.I.C.E., City Surveyor

#### CITY O.F LEICESTER. DEMOLITION AND CLEARANCE WORKS.

#### COMPULSORY PURCHASE ORDER, 1958. LEICESTER CORPORATION AREAS NOS. 217 & 219.

FIXED-PRICE TENDERS are invited from experienced contractors for the DEMOLITION and CLEAR-ANCE of SS PROPERTIES and a read between GRAHAM STREET and HUMBEST ON THE STREET AND THE STREET

JOHN L. BECKETT, M.I.C.E., City Surveyor.

#### WILLENHALL URBAN DISTRICT

# CHAIN LINK FENCING.

TENDERS are invited for the SUPPLY and ERECTION of CHAIN LINK FENCING at THRESTITES in the Urban District, totalling approx. SOI in the Urban District, totalling approx. SOI in the Urban District, totalling approx. SOI in the Urban District, and Surveyor, Town Hall, Willenhall, Staffs, and bona-nide Tenders should be received by the undersigned, in a plain sealed envelope endorsed "Fencing," not later than First Post on THURSDAY, the 1st June, 1961.

JOHN R. RIDING. Clerk of the Council.

Town Hall, Willenhall.

#### CONTRACTS

# COUNTY BOROUGH OF BURNLEY.

# FLAGGING AND KERBING WORKS

TENDERS are invited for REKERBING and RE-FLAGGING WORKS within the Borough, comprising approx. 1,900 lin. yd. of Kerbing and 3,200 sq. yd.

Tender are to be returned to the undersigned nm later than 29th May, 1961.

C. V. THORNLEY,

#### COUNTY BOROUGH OF IPSWICH.

TENDERS are invited for the SUPPLY to Various of the FOLLOWING during the period commencing 1st July. 1961.

Petrol, Fuel Oil, Paraffin, Coal and Coke. Petrol Forms and further particulars may be obtained from the Town Clerk's Office, Town Hall, Fenders, in plain sealed envelopes, bearing the words "Tender for ——" (followed by the aublect to which the Tender relates), with no name to indicate the sender, must be received by me not later than the 25th MAY, 1961.

J. C. NELSON, Town Clerk.

# BOROUGH OF BRENTFORD AND

# KEW BRIDGE ROAD, BRENTFORD RESURFACING

TENDERS are invited for the ABOVE WORK, which comprises the Repair of Cracks in Surface and Foundation, and the Heating and Planing and Resurfacing in Wearing Course of Hot Rolled Asphalt 1/2 in. in thickness. Approx. area 3,500 sq. yd.

Documents are obtainable from the Borough Englineer and Surveyor, Town Hall, Chiswick, W4, and are returnable to me not later than 10 am. on FRIDAY, 26th May, 1961.

W. F. J. CHURCH, Town Clerk.

# Town Hall, Chiswick, W.4

# BOROUGH OF RICHMOND (SURREY)

TO RILLIDERS

The COUNCIL invite TENDERS for EXTERNAL PAINTING and MINOR REPAIRS to 82 HOUSES and 12 FLATS in the Ham area.

Forms of Tender, Specification and Schedule may elevate the obtained from the Borough Engineer and Surveyor, King's Road, Richmond.

Tenders, sealed in envelope provided, must be received not later than 5 p.m. on MONDAY, 5th June The Council do not bind themselves to accept the lowest or any Tender.

CLIFFORD HEYWORTH.

CLIFFORD HEYWORTH, Town Clerk.

Town Hall,
Richmond,
Surrey.

CITY OF MANCHESTER

TENDERS invited for the SUPPLY and LAYING of THERMOPLASTIC TILE FLOORING at INCHOLIS SECONDARY SCHOOL, ARDWICK, Bill of Quantities from CITY ARCHITECT, P.O. Box 488, Town Hall, Tender returnable by MAY 24th.

CITY OF MANCHESTER

TENDERS invited for the ERECTION of SHELTER and TOILET at the FOLLOWING:—

(a) Ashley Lane, Moston.
(b) Tayfield Road, Wythenshawe.
Bills of Quantities from CITY ARCHITECT, P.O. Box 486, Town Hall.
Tenders returnable by MAY 31st.

#### CITY OF MANCHESTER

# ROYLE GREEN ROAD DEVELOPMENT.

# STAGE 2-NORTHENDEN. ROAD AND SEWER CONTRACT.

TENDERS are invited for CONSTRUCTING 3.500
. yd. BITUMEN MACADAM CARRIAGEWAY.
10 lin. yd. 9in. to 12in. dia. SEWER, and all siz. yd. BITUMEN MACADAM CARRIAGEWAY. 500 lin. yd. 9in. to 12in. dia. SEWER, and all ancillary works. Tender documents (returnable by 29th MAY, 1961) obtainable from the CITY SURVEYOR (Room 208). Town Halli, Manchesier, 2.

# SILSDEN URBAN DISTRICT COUNCIL

EXTENSION OF TOWN HALL TENDERS are invited for ALTERATIONS and ADDITIONS to SILSDEN TOWN HALL. Forms from the Council's Engineer at the Town Hall, Slinden on deposit of the Silsden town the Silsden of the Sils

# E. K. GRATION. Clerk of the Council. URBAN DISTRICT COUNCIL OF WELLINGBOROUGH.

TENDERS FOR PLANT. TENDERS FOR PLANT.

TENDERS are invited for the FOLLOWING—
(a) One Portable Rotary Compressor (72 c.f.m.
(b) One Diesel Hydraulic Wheeled Loading Shovel.
(c) One 3 (4-ton Petrol Tipping Lorry.
Details from the Engineer and Surveyor.
Tenders, in plain sealed envelopes suitably endorsed, must reach me by Noon on TUESDAY, the 23rd May.
The Council are not bound to accept the lowest or any Tender.

W. G. PALMER.
Clerk of the Council.

Council Offices. Swanspool, Wellingborough. 2nd May, 1961.

ANNUAL TENDERS FOR THE SUPPLY OF MATERIALS AND SERVICES.

TENDERS are invited for the FOLLOWING for the riod 1st July, 1961, to 30th June, 1962:—

TENDERS are invited for the FOLLOWING for the period 1st July. 1961, to 30th June, 1962:—
Tender
No.
Coated Macadam, Fine Cold Asphalt and Special Carnets.

(1) Special Carnets.
(2) Hot Process Rolled Asphalt—Supplying and Laying (B. S. 594).
(3) Cement (Bagged and Bulk).
(4) Broken Stone and Chippings (Igneous).
(5) Sand and Jag and Penning.
(7) Concrete Kerbs, Flags, Quadrants, etc.
(8) Precast Concrete Goods—Fence, Clothes Posts and Lintois.
(9) C.I. Manhole Covers and Gully Grates.
(10) Salt Glazed and Sheet, Solder.
(11) Plaster, Plasterboard, Paramount Cellular Partition, Building and Plastering Limes.
(13) Nalls, Screws, Nuts and Bolts.
(14) Asbestos-Cement Rainwater and Soil Goods.
(15) C.I. Rainwater and Soil Goods.
(16) Qualls, Firebricks and Fire Cement.
(17) Qualls, Firebricks and Fire Cement.
(18) Domestic M.S. Back Boilers and Firebottoms.
(19) Chimney Pots and Glazed Tiles.
(20) Copper Tube.
(21) V.E. Metal Draining Boards.
(22) W.C. Pedestals, etc.
(23) W.C. Seats—Plastic and Timber.
(24) Ready Mixed Concrete.
(25) Gas Mantles for Street Lighting.
(26) Plumbers Basser—Lavatory Basins, Sinks and Compression.
(50) Paint, Putty and Distemper.
(51) Decorators Brushes.
(52) Glass—Sheet.
(53) Galvanised Hollow-ware — Dustbins, Gas Particulars and Forms of Tender from the Borough Tenders to be received by the ToWn CLERK, in sealed envelopes provided, on or bown CLERK, in sealed envelopes provided, on or before FallDark, 25th Mark.

COUNTY BOROUGH OF SOUTHAMPTON.

# CHAPEL INDUSTRIAL AREA. ROADS AND SEWERS.

Contractors wishing to TENDER for the ABOVE WORKS, which comprise approx. 460yd, of new Reconstruction of existing Roads, with Lean-mix Concrete Foundations, together with new Sewers and ancillary works, should submit their names to the BOROUGH ENGINEER, Civic Centre, Southampton, by 15th JUNE, after which documents will be forwarded as soon as possible.

COUNTY BOROUGH OF SOUTHPORT.

TENDERS are invited for the SUPPLY of POLICE UNIFORM CLOTHING, including Caps, Helmets, Shirts, Ties, Gloves, Mackintoshes, Gaberdine Raincoats and Storm Suits for Motor Cyclists and Storm Suits for Motor Cyclists Particulars and Forms of Tender can be obtained from the Chief Constable, Police Headquarters,

Particular Chief Constant Particular Constant Particular Counts of Constant Particular P

DEPTFORD BOROUGH COUNCIL.

TENDERS are invited for the SUPPLY, DELIVERY and ERECTION of: (a) 404yd, run 2ft. 6in. GALVAN-ISED MILD STEEL HURDLE RAILINGS AND GATES IS S. Paul's Churchyard, S.E.8, and (b) 76 GALVANISED RAILED PANELS to Play Areas at Cyde Street Flats, S.E. Contract, and full particular on the supplemental of the undersigned, in the envelopes provided, not later than 4 p.m. on MONDAY, 12th June, 1961.

The Council does not disself to accept the lowest of any Tender.

ERNEST FIELD.

ERNEST FIELD, Town Clerk.

Deptford Town Hall, New Cross, S.E.14. May, 1961.

# BOROUGH OF BRIGHOUSE.

INDUSTRIAL ESTATE-WAKEFIELD ROAD.

TENDERS are invited for the LAYING of 548 lin. yd. of 18in. dia. CONCRETE PIPE SURFACE WATER SEWER, together with the Construction of three Manholes.

three Manholes.
Conditions of Tender and other documents may be obtained, and Drawings inspected, at the Office of the Borough Engineer, Commercial Street, Brighouse, on payment of One Pound which is returnable on receipt of a bona-fide Tender.
Tenders must be received by the undersigned not received the property of the property of

later than First Post on MONDAY, the 29th May.

1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. R. LIDDLE. Town Clerk

BILLINGHAM URBAN DISTRICT

LOW GRANGE PRIVATE DEVELOPMENT AREA-

MAIN INTERCEPTING SEWER.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of about 800 lin. yd. of 30in. to 21in. dia. CONCRETE PIPE SEWERS, Manholes, and incidental works.

Specifications, Bills of Quantities and Form of tender may be obtained from EDWIN SHAW.

B.Sc.(Tech.)Hons., A.M.I.C.E., A.M.C.T., Engineer and advanced to the address given below, on payment of a deposit at the address given below, on payment of a deposit at the address given below, on payment of a deposit at the address given below, on payment of a bona-fide Contract and Drawings may be inspected at the Engineer and Surveyor's Office.

Tenders, in plain sealed envelopes endorsed Tender for Low Grange Main Sewer," must be received by the undersigned not later than 10 a.m. on MONDAY. Sth June. 1961.

FRED. M. DAWSON.

Clerk of the Council.

Council Offices, Haverton Hill, Billingham, Co. Durham,

# CONTRACTS

COUNTY BOROUGH OF METROPOLITAN BOROUGH OF

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING:—
(a) 500 Heavy Cast-Iron Gully Gratings and Frames to the Council's Standard Pattern.
(b) 55 1¹a cu, yd. Galvanised Meild Steel Cylindrical Refuse Storage Containers and 54 Lids.

Further particulars and Forms of Tender from the BOROUGH ENGINEER, Lewisham Town Hall, Catford, S.E.G. S.E.G.
Closing date, 10 a.m., THURSDAY, 25th May, 1961.

BOROUGH OF EALING.

CONVERSION OF FILAMENT TO SODIUM LIGHTING. CONTRACT "A"—SUPPLY OF 3.600 LANTERN LAMPS AND CONTROL GEAR.
CONTRACT "B"—SUPPLY OF 1.500 BRACKETS and 500 CONTROL GEARBOXES.

and 500 CONTROL School Engineer, Town all, Ealing, W.S. on payment of £5 for each ontract, returnable on receipt of a bona-hde Tender. Closing date of Tender: 30th MAY, 1951.

E. J. COPE BROWN.
Town Clerk.

BOROUGH OF LEYTON.

TENDERS are invited for the CARRYING OUT of THE ABOVE WORKS during the year 1st June, 1961, to 31st May, 1962.

Form of Tender may be obtained from the Borouch Finglineer, Town Hall, Leyton, E.10, upon receipt of a deposit of £2 2s, which will be refunded on receipt of a bonafde Tender.

The tender that the tender of the t

D. J. OSBORNE. Town Clerk.

Town Hall, Leyton, E.10. BOROUGH OF HENDON.

The BOROUGH COUNCIL Invite TENDERS for the FOLLOWING:—

(a) Crawler Tractor Shovel not exceeding 172 (b) Crawler Tractor Shovel not exceeding 173 (c) Crawler Crack Tractor Shovel not exceeding 173 (c) Crawler Crawler Crack Tractor Shovel not exceeding 174 (c) Crawler Cr

# MARCH URBAN DISTRICT COUNCIL. SURFACE DRESSING, 1961.

SURFACE DRESSING, 1961.

TENDERS are invited from experienced contractors, for the SURFACE DRESSING with HOT TAR of approx. 16,000 super, yel. of CARRIAGEWAYS within the Urban Districtions, together with Forms of Tender, may be obtained from W. S. PICKETT, M.I.Mun.E., Chartered Municipal Engineer and Surveyor, Town Hall, March, Cambs., during the usual office hours, Tenders, in plain sealed envelopes endorsed "Surface Dressing, 1961," are to the delivered to the Clerk of the Council. Town Hall, March, Cambs., by not later than SATURDAY, 27th May, 1961.

E. A. LITTLER, Clerk of the Council.

Town Hall,
March, Cambs,
4th May, 1961.

ILKLEY URBAN DISTRICT COUNCIL.

# PUBLIC CONVENIENCES, ILKLEY.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of PUBLIC CONVENIENCES at the BATHING POOL. Ilike, Plans and Conditions of Contract may be inspected and copies of the Specification. Bills of Quantities and Form of Tender obtained at the Office of the Engineer and Surveyor. Chantry Drive. Ilikey.

Tenders, endorsed "Public Conveniences," in a plain sealed envelope, to be received by the undersigned by 9th JUNE, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

B. E. TOWNEND.

B. E. TOWNEND, Clerk of the Council. Town Hall, likley. 5th May, 1961.

WIGTON RURAL DISTRICT COUNCIL. WATER DEVELOPMENT SCHEME-STAGE IV.

The Council invite FIXED-RRICE TENDERS for the LAYING of about 17.000 lin. vd. of 12in. dia. 1.700 lin. yd. of 12in. dia. 1.700 lin. yd. of 4 lin. dia. S.C.I. WATER MAINS, and the Construction of an Enclosed Reinforced Concrete Service Reservoir of Im. gallons capacity, with ancillary works. Tender documents and Drawinos zan be obtained from ERIC G. LEDIARD. M.I.C.E., 4 Eldon Square. Newcastle upon Tyrie. on or affected 13th May. Newcastle upon Tyrie. The contract of 15th May. Of the Council, which will be returned on receipt of a bona-fide Tender and the return of all documents and Plans after the Contract has been let. Contractors applying for Tender documents will be required to furnish proof of their experience in the construction of water supply works of a construction of water supply works of the Contract. Sealed Tenders, endorsed "Trunk Water Main," and bearing mo indication of the sender, must be delivered to reach the undersigned on ar before 12 Noon on FRIDAY, 23rd June, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

Cerk of the Council.

Cuncil Offices,
Wigton, Cumbs.

Council Offices, Wigton, Cumbs.

# CONTRACTS

LONDON COUNTY COUNCIL.

COLDHARSOUR LANE, LAMBETH-IMPROVEMENT.

COLDHARSOUR LANE, LAMBETH—IMPROVEMENT.

TENDERS are invited from contractors having considerable experience of road construction works, for the WIDENING of COLDHARBOUR LANE, Lambeth, from No. 16 to Lowth Road, Form of Tender, Specification, etc., and Drawings are obtainable from the Chief Engineer upon payment of £3 by crossed cheque or order made payable to the London County Council, which will be returned on the London County Council, which will be returned to the London County Council, which will be returned to the London County Council, which will be returned to the County Hall, before payment of fee. Remittance by post should be addressed to the Chief Engineer (BC.(1263.5), County Hall, Westminster Bridge, S.E.1.

No. Tender received by the CLERK OF THE

No. Tender received by the CLERK OF THE COUNCIL after 3 p.m. on MONDAY, 5th June, 1961, will be considered.

The Council does not bind itself to accept the lowest or any Tender.

MONTGOMERYSHIRE COUNTY

HIGHWAYS DEPARTMENT.

RECONSTRUCTION OF BRIDGE OVER AFON TWACH, FOEL—THREE MILES WEST OF LLANERFYL ON SHREWSBURY-DOLGELLAU TRUNK ROAD, A.458.

TENDERS are invited for the DEMOLITION of EXISTING, and CONSTRUCTION of NEW, BRIDGE, 35ft. span, and appurtenant works of Road and Footway Construction, and Alterations to Adjacent

Footway Construction, and Alterations to Adjacent Property.

The existing bridge is a masonry arch, and the naw bridge will consist of Rolled Steel Joists in Concrete resting on Reinforced Concrete Abutments, with Reinforced Concrete Wing-walls Faced with Reconstructed Stone.

Contract documents and Drawings may be obtained from the County Survelyor, County Offices, Weishpool, one payment of a deposit of £5, returnable on receipt and payment of a deposit of £5, returnable on receipt and the payment of the contract of the

e sender.

The Council do not bind themselves is accept the west or any Tender. P. E. WHITE, Clerk of the County Council.

County Offices, Weishpool, 25th April,

STAFFORDSHIRE COUNTY COUNCIL. COUNTY ROADS AND BRIDGES DEPARTMENT.

LEONARD AVENUE, BADDELEY GREEN, STOKE-ON-TRENT.

TENDERS are invited for the MAKING-UP of LEONARD AVENUE, Baddeley Green, Length 261yd. The work includes Taking-up existing Concrete Kerbs and Channel, Excavation of Carriageway, Sin. Broken Stone and 3in, Ashes, Sin. Bituminous Macadam Surfacing, new Concrete Kerbs and Channels, and Footpaths of 3in. Ashes with 112in. Base Coat of Bituminous Macadam Surfaced with 12in. Cold Asphalt.

Tenders should be returned to the undersigned and later than 10 a.m. on 29th MAY, with a deposit of ES, returnable on receipt the boat-Ade Tender. The lowest or any Tender LeVANS.

Clerk of the County Council.

CITY OF NOTTINGHAM.

The CORPORATION of the City of Nottingham invite TENDERS for the CONSTRUCTION of TWO BRIDGES, over the Beeston Canal and Railway on the ine of the proposed Cilifon Boulevard Extension.

Tender documents may be obtained from F. M. Tender documents may be obtained from F. M. City Engliev and Surveyor, The Guidhail, Nottingham, on payment of £15 which will be returned on receipt of a bona-fide Tender.

Tenders, in the official envelope, are Iti be delivered not later than S. p.m. on 15th JUNE, 1961.

The lowest or any Tender will not necessarily be accepted, and Tenders will only be considered from firms paying the local standard rate of wages, etc., and who conform to the working rules at the Nottingham district.

T. J. OWEN. The Guildhall, Nottingham, May, 1961.

BERKHAMSTED URBAN DISTRICT

ADDITIONAL OFFICE ACCOMMODATION-

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of ADDITIONAL OFFICE ACCOMMODATION over the Council Chamber. Specification, Bills of Quantities and Surveyor, at the address below, on paymona-fide Tender, returnate on Kenter and Surveyor, at the address below, on paymona-fide Tender, returnate on Kenter and Surveyor, at the address below, on paymona-fide Tender, returnate on Kenter and Tender and T

WILLENHALL URBAN DISTRICT

FOOTWAY AND DRAINAGE WORKS.

TENDERS are invited for LABOUR ONLY for KERB LAYING CHAMBELLING, INSTALLATION of ROBERT CHAMBELLING, INSTALLATION of ROBERT CONNECTIONS in various Chambers of the Urban District. The work involves apprais, 5,000yd, of Kerbing and appurenant work from the Engineer and Surveyor, Town Hail, Willenhall, and bona-fide Tenders should be received by the signed in plain sealed envelopes, ender the signed in plain sealed envelopes, ender the Sthume, 1361.

JOHN R. RIDING.

Town Half. Willenhalf, Staffs.

SUPPLEMENT

COUNTY BOROUGH OF BOURNEMOUTH: BOROUGH ENGINEER'S DEPARTMENT.

100 TONS IN. PINK LIMESTONE CHIPPINGS

TENDERS are invited for SUPPLYING and DE-LIVERING the ABOVE.

No Tender Forms are issued.

No Tender Forms are issued.

No Tender Forms are issued.

Invest or any Tender.

Tenders in a plain sealed envelope, endorsed "Tender for Chippings," but bearing no mark or name indicating the sender, to reach me by the 20th MAY, 1961.

A. LINDSAY CLEGG. Town Clerk.

Bournemouth, 5th May, 1961. COUNTY BOROUGH OF IPSWICH.

ASPHALT SURFACING WORKS, 1961/62.

ASPHALT SURFACING WORKS, 1961/62.

TENDERS are invited for the SUPPLY, DELIVERY and LAYING of approx. 1.500 sq. vd. of SINGLE COURSE and STATES ROADS.

Copies of Specification, Form of Tender and Bills of Quantities may be obtained from the Borouph Surveyor, 19 Tower Street, Ipswich, where Conditions of Contract and Form of Tender can be inspected during normal working hours.

Tenders, in plain sealed envelopes bearing the words. Tenders to the undersigned, but with no name or mark to indicate the sender, not later than 12 Noon on MONDAY. 29th May, 1961.

The Council does not bind itself to accept the lowest or any Tender.

J. C. NELSON. Town Clerk.

Town Hall, Ipswich. 5th May, 1961.

METROPOLITAN BOROUGH OF

STREET NAMEPLATES

TENDERS invited for SUPPLY and DELIVERY of 678 STREET NAMEPLATES. Tender documents, obtainable from the Borough Engineer, must reach me by 10 a.m., 31st MAY, 1961 I. NOEL MARTIN. Town Clerk

Municipal Buildings.
Wandsworth, S.W.1B.

BOROUGH OF ACTON.

The COUNCIL invite TENDERS for the FOLLOWING:

(a) Supplying and Erecting Chain Link Fencing and Metal Railings.

(b) Resurfacing and Repaving Highways.

(c) Removing Street Trees.

(d) Repainting Street Lighting Collecting Vehicles, the Council of the Collecting Vehicles.

(e) Supplying The Vehicles Collecting Vehicles, the Collecting Vehicles

BOROUGH OF BRIDGWATER

MOORLAND WAY-WEACOMBE ROAD SITE.

TENDERS are invited for the CONSTRUCTION of 1.120 sq. vd. of REIMFORCED CONCRETE CAR-RIAGEWAY 200 lin. vd. of 9in. and 6in. S.G.W. SEWERS, including all ancillary and incidental works. Full particulars and documents may be obtained from Borough Engineer. Town Hall. Briddwater. on payment of a \$2 2s. deposit. Colsing date for receipt of 1.20 colsing date for rec

H. A. CLIDERO, Town Clerk.

BOROUGH OF BRIDGWATER. SYDENHAM ESTATE FOOTPATHS-SOUTH NO. 2-

TENDERS are invited for the CONSTRUCTION of 1.100 sti. vd. of TARMACADAM FOOTPATH, including all ancillary and incidental works. Full particulars and documents may be obtained from the Borough Engineer. Town Hall, Bridgwater, on payment of £2 2s. deposit. Closing date for receipt of Tenders, The Council do not bind themselves to accept the lowest or any Tender.

The Council do not bind themselves to accept the lowest or any Tender.

H. A. CLIDERO.

H. A. CLIDERO.

BOROUGH OF FARNWORTH. SURFACE DRESSING OF ROADS, 1961-62.

TENDERS are invited for the SURFACE DRESSING of approx. 30,000yd. of ROADS. Specification, Forms of Tender and General Conditions may be obtained on application to the Borough Engineer and Surveyor at the undermentioned address. Tenders. in a plain sealed envelope, endorsed "Tender for Tarspraying." should be delivered to the undersigned not later than 29th MAY. 1961.

THOMAS HITCHEN.

Town Hall, Farnworth, Bolton, Lancs.

6th May, 1961.

NORTHALLERTON RURAL DISTRICT

BLOCK OF SIX FLATS—BROMPTON, NORTHALLERTON, NR.37.

TENDERS are invited for the ERECTION of ONE BLOCK OF SIX FLATS, Two-storey, of Traditional Construction.

BLOCK OF SIX FLATS. Two-storey, of Traditional Silis of Quantities and Forms of Tender may be obtained from the Office of the Clerk of the Council, The old Vicarage, Northallerton, on payment of a deposit of Two Guineas which will be refunded withdrawn. Tenders, on the form provided and enclosed in plain scaled envelope.

Tenders, on the form provided and enclosed in a plain scaled envelope endorsed "Tender for Old People's Dwellings." are to be delivered to the undersigned by 10 a.m. on MONDAY, 29th May, 195. Undertaking is given that the lowest or any other Tender will be accepted.

Plans and Conditions of Contract may be seen at the Office of the Clerk of the Council, The Old Vicarage. Northallerton, or at the Architects, BRIERLEY, LECKENBY AND KEIGHLEY, F.A.A.R.I.B.A., 10 Lendal, York.

D. PARKIN, Clerk of the Council.

#### CONTRACTS

RUISLIP - NORTHWOOD

TENDERS are invited for the FOLLOWING TWO Making-up of Acacia Avenue (Part)—Approx. 30
In. vd. uf Street in 7in. R.C. Carriageway.
Kerbing and Artificial Stone Paving.
Tender documents from the Engineer and Surveyor en payment of £2 2s. deposit,
Painting of Sewer Vent Columns—Preparation and Painting of 170 Columns.
Tender documents from the Engineer and Surveyor. No deposit,
Value of the Columns of 170 Columns.
Tender documents from the Engineer and Surveyor. No deposit.
MoNDAY, 29th May, 1961.

EDWARD S. SAYWELL, Clerk of the Council.

Council Offices,

URBAN DISTRICT COUNCIL OF WARE. ROAD CONSTRUCTION—AGED PERSONS SITE, OFF WATTON ROAD.

TENDERS are invited for ABOVE, involving Construction of approx. 730 super. yd. Tarmacadam Carriageway, with Kerbing, Footpath, Verges, and Surface Water Drainage, and ancillary works. Tender documents may be obtained from A. G. DAVENPORT, A.M.I.C.E., F.R.I.C.S., Engineer and Surveyor, The Priory, Ware, on payment of a deposit of Two Guineas. The Council does not bind itself to accept the lowest or any Tender.

LESLIE G. SOUTHALL,

The Priory.

The Priory. Ware, Herts. 8th May, 1961.

URBAN DISTRICT COUNCIL OF

ERECTION OF LIBRARY AT OLD COULSDON

TENDERS are invited for the ABOVE. Applications for Bills of Quantities and Form of ender to the undersigned, with a deposit of £3 3s. nich will be refunded upon receipt of a bona-fide

which will be refunded upon receipt or a bone-which will be respected at the Office of the Architect, E. F. STARLING, B.A., A.R.I.B.A., 29a Bell Street, Reigate, Surrey.
Sealed Tenders, endorsed "Tender for Old Coulsdon Library," must be delivered to the undersigned by First Post on MONDAY, Sth June, 1961.
The Council do not bind themselves to accept the lowest or any Tender.

ERIC F. J. FELIX, Clerk of the Council.

Council Offices. Purley, Surrey.

For Contracts received too late for classification see page 705

APPOINTMENTS VACANT

BOROUGH OF KETTERING. APPOINTMENT OF SENIOR ENGINEERING

APPLICATIONS are invited for the APPOINTMENT in the Boroush Surveyor's Department of a SENIOR ENGINEERING ASSISTANT at a salary in accordance with A.P.T. Grade IV (£1,140-£1,310 p.a.) of the National Scales of Salaries.

Tourish the Application of the Gradieste must hold the Testamur of the qualification Municipal Engineers, or an equivalent qualification

candidate.

Housing accommodation will be available if required.
The appointment will be subject to the National Scheme of Conditions of Service and Local Government Superannuation Acts.

Applications, stating age, qualifications and experience, together with the names of two referees, should reach the undersigned not later than the 27th MAY, 1961.

D. DUNSFORD PRICE, Town Clerk.

BOROUGH OF ROWLEY REGIS APPOINTMENT OF TWO SENIOR ENGINEERING

APPLICATIONS are invited for the ABOVE APPOINTMENTS from suitably qualified Engineers preferably experienced in main sewerage and drainage

schemes.

Salaries will be within A.P.T. Grade IV (£1,140£1,310), and the Council will offer housing accommodation to suitable applicants.

Applications, stating qualifications and experience, and accompanied by the names and addresses of two persons to whom reference can be made, should be sent to the Borough Engineer and Surveyor at the address below not later than MONDAY, the 15th May, 1961.

G. C. COOKSON, Town Clerk.

OF CITY OXFORD.

WATER UNDERTAKING

DRAUGHTSMAN (MALE).

DRAUGHTSMAN (MALE).

DRAUGHTSMAN REQUIRED. Salary Misc. IV (£625-£685), depending on experience. Permanent, pensionable sost. Medical examination.

Work will consist primarily aid drawing office work will be consisted to the consistence of the consistence of design duties of a normal drawing office work applications considered from candidates, including those of school-leaving age without previous experience, on a lower scale.

Application Form from the City Water Engineer, Denton House, Iffley Turn, Oxford, returnable within time month from date of advertisement.

HARRY PLOWMAN. Town Clerk.

APPOINTMENTS VACANT

BOROUGH OF PUDSEY, CLERK OF WORKS.

CLERK OF WORKS.

APPLICATIONS are invited from suitably qualified persons, with previous Clerk of Works experience, for appointment as TEMPORARY LIERK OF THE WORKS. Commencing salary to be fixed according to qualifications and experience.

The person appointed will be required to work under the direction of the Architect appointed by the Corporation in connection with the erection old people's dwellings at Brookleigh. Calverley, The appointed will be required to work under the direction of the Architect appointed by the Corporation in connection with the erection old people's dwellings at Brookleigh. Calverley, The appointed will be rectioned to the commence of Conditions of Service, and to the successful applicant passing satisfactority a more commodation, if necessary, for the successful applicant possing satisfactority and commodation, if necessary, for the successful applicant present appointment of the property of the successful applicant programs appointment of the programs applicant.

applicant.

Applications, stating age, present appointment, qualifications and previous experience, together with the names of two referees, must be delivered to the Borough Surveyor, Town Hall, Pudsey, endorsed "Clerk of Works," not later than 9 a.m. on WEDNESDAY, 24th May, 1961.

Canvassing, 24th May, 1961.

W. RICHARD CRUSE, Town Clerk.

Town Hall, Pudsey.

BOROUGH OF HESTON AND

ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF SENIOR ENGINEERING ASSISTANT.

SENIOR ENGINEERING ASSISTANT.

APPLICATIONS are invited for the POST of SENIOR ENGINEERING ASSISTANT. A salary in the Senior Engineering assistant, and the salary in the National Joint Council's scale of salaries \$1,146-\$1,310), plus London Weighting. Candidates should have good city or municipal experience, and must have passed the final examination of either the institution of Civil Engineers. The Council is unable to assist the successful candidate with housing accommodation. Applications, on forms to be obtained from the Borough Engineer and Surveyor, 88 Lampton Road, Hounslow, must be returned to him not later than housing MONDAY, 22nd May, 1981, appropriately bendorsed.

D. MATHIESCH.

D. MATHIESON,

Town Hall, Hounslow, Middx.

OF BOROUGH ENFIELD.

BOROUGH ENGINEER AND SURVEYOR'S

APPLICATIONS are invited for the FOLLOWING PERMANENT APPOINTMENTS (5-day week): Engineering Assistant—A.P.T. II. III. Architectra Assistant—A.P.T. IIII. Architectra Assistants—A.P.T. IIII. Details of appointments and Application Forms obtainable from the Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield.

dens, Enfield. CYRIL E. C. R. PLATTEN, Town Clerk.

Civic Centre,

CAMBORNE-REDRUTH URBAN DISTRICT

SENIOR ASSISTANT ENGINEER (WATER). GRADE A.P.T. V (£1,310-£1,480).

GRADE A.P.T. V (£1,310-£1,480).

APPLICATIONS are invited for the APPOINTMENT of SENIOR ASSISTANT ENGINEER in the Engineer and Surveyor's Department.

Applicants must be Associate Members of the Institution of Civil Engineers and/or hold the Testamus of the Institution of Municipal Engineers, and have histitution of Municipal Engineers, and have histitution of Municipal Engineers, and have historial to the provisions of the Local Government is subject to the provisions of the Local Government Superanuation Acts. 1937-53. to the National Joint Council's Scheme of Conditions of Service, and is terminable upon the expiration one month's notice in writing by either side. Consideration will be given to the provision of housing accommodation, if required to the provision of housing accommodation, if required by the undersigned not later than 20th MAY, 1961.

The successful applicant will be required to pass a medical examination, to be carried out by this Council's Medical Officer of Health.

Canvassing, either directly or indirectly, will be a disqualification, and applicants must disclose their relationship to any member or senior officer of the Council.

S. C. WILSON,

S. C. WILSON, Clerk of the Council.

Council Offices, Camborne, Cornwall. 25th April, 1961.

NEW RADNOR RURAL DISTRICT

NEW RADNOR AREA WATER SUPPLY. APPOINTMENT OF RESIDENT ENGINEER.

APPOINTMENT OF RESIDENT ENGINEER.

The Council invite APPLICATIONS for the POST of RESIDENT ENGINEER for the execution by contract of works comprising the laying of asbestorment of the entering of the enter

A. J. BLATCHFORD, Clerk of the Council.

Council Offices, 2 Mill Street, Kington, Heres. 28th April, 1961.

# STAFFORDSHIRE COUNTY COUNCIL. COUNTY SURVEYOR'S, DEPARTMENT.

COUNTY SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS, which are in connection with the supervision of Motorway Contract Works:

Resident Engineer (Roads)—Salary £1,525 p.a. Assistant Resident Engineers (Bridges)—Salary £1,200-£1,300 p.a.

Applicants must be qualified Engineers and have had the appropriate experience on the supervision of major constructional works.

Quantity Surveyor—Salary £1,000-£1,000 p.a.

Applicants with the standard method of measurement on civil engineering contracts, and have detailed knowledge with repard to payments made on interim and final measurements made on interim and final measurements.

payments made on interim and final measurements.

Site Laboratory Staff—Assistants—Salary £1,200 p.a.

measurements.

Site Laboratory Staff—Assistants—Salary £1,200 p.a.
Applicants must have the necessary technical and practical experience to deal with laboratory aspects of control: particularly the testing of soils and road materials.

Clerks of Works—Salary £1,00.2-£1,100 p.a.
Applicants must have had previous experience on large constructions works previous of a structural character, or on major the County Council have approved a scale of to the standard salaries.

The apointments as uperannuable, and the County Council will, or period of six months, grant a lodging allow for the standard salaries.

The apointments are period of six months, grant a lodging allow for the successful candidate, if married and maintaining a home outside the geographical county. The Council will also consider great and maintaining a home outside the geographical county. The Council will also consider great and proportion of the council of the council of the period of the council of the county Committee of the Council, directly or indirectly, will be a disqualification.

Applications, on the appropriate forms, which can be obtained from the County Surveyor, County Buildings, Safer the date of publication of this advertisement.

Clerk of the County Council, clerk of the County Council.

T. H. EVANS. Clerk of the County Council.

County Buildings, Stafford. May, 1961.

# HERTFORDSHIRE COUNTY COUNCIL. STEVENAGE BY-PASS.

APPLICATIONS are invited for the APPOINTMENT QUANTITY SURVEYOR, at a salary of £1,385

of QUANTITY SURVEYOR, at a salary of £1,385 per annum.
This is temporary appointment on works for a period of about 12 months. Candidates should hold appropriate qualifications.
Applications (no forms supplied), stating age, qualifications, present salary, details of experience and names of two referees, to bits sent at once to the COUNTY SURVEYOR, County Hall, Hertford.

# CITY AND COUNTY OF BRISTOL. APPOINTMENT OF PRINCIPAL ASSISTANT ENGINEERS AND ASSISTANT ENGINEERS.

APPOINTMENT OF PRINCIPAL ASSISTANT ENGINEERS AND ASSISTANT ENGINEERS.

APPLICATIONS invited for FOLLOWING POSTS in City Engineer and Planning Officer's Department:—

(a) Frincipal Assistant Engineers, Department:—
(b) Assistant Engineers, Grade A.P.T. V (£1,310-£1,480 per annum).

Candidates should be competent municipal engineers of considerable experience, able to take control of works of substantial magnitude and, in the Came of (a), to supervise staff.

(c) Engineers, Grade A.P.T. IV (£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,310-£1,140-£1,31

be capable of preparing reinforced concrete details to capable of preparing reinforced concrete details other load-bears structures, but previous content of the concentration of

HIGHWAYS FOREMAN, Miscellaneous V (£725-£800 per annum, inclusive), Maintenance of district roads mainty. Full particular including from from Borough Engineer, Town Hall, Ealing, W.S. Closing date, 15th MAY, 1961.

# APPOINTMENTS VACANT

# A DEN GOVERNMENT.

PUBLIC WORKS DEPARTMENT.

PUBLIC WORKS DEPARTMENT.

INSPECTOR OF WORKS (ROADS) REQUIRED by Aden Government Public Works Department. On contract for tour of 18-24 months in first instance. Salary, according to experience, in Scale (including Pay Differential £1.040, rising to £1.579 a year. Supplementary Pay Differential £120 to £144 a year, payable to officer with dependent children. Gratuity Free passages and education allowances up to £288 annually. Liberal leave on full salary between tours, terminal payment in lieu if contract not renewed. Quarters available at moderate rental. Candidates must have served apprenticeship in building trade, with at least five years' subsequent experience in road construction, including bitumen construction. Experience of the contract not read soil coment road construction desirable work and soil cement road construction desirable work and soil cement road construction desirable work and soil cement road construction form and further particulars, stating age, name, brief details of qualifications and experience, and quoting Ref. M28/51323/CA.

# COUNTY BOROUGH OF BOOTLE BOROUGH SURVEYOR'S DEPARTMENT (PUBLIC WORKS SECTION).

BOROUGH SURVEYOR'S DEPARTMENT (PUBLIC WORKS SECTION).

APPLICATIONS are invited for the UNDERMENTIONED APPOINTMENTS. The Public Works Section carries out work comprising new buildings, building maintenance, highways, sewers, public cleansing, street lighting, and motor vehicle operation: (a) Deputy Works Superintendent — A.P.T. Grade III (IV (1960-13.10 p.a.).

The public department of the original state of the public of men, should also have considerable experience of builders' quantities and office organisation. He will be responsible to the Works Superintendent for estimating for competitive tendering, valuations of work, cost control and final accounts, and the Theodometric Control and final accounts, and the Grade range stated above, depending on qualifications and experience.

(b) Assistant Works Superintendent — A.P.T. Grade III (1960-12.140 p.a.).

The person appointed must have had extensional planning and programming, and taking-off materials required for large building projects. He will be required to work under the Works Superintendent in conjunction with the various Foremen in effecting maximum supervision of works in the works Superintendent of the control of men al all trades, and have a good all-round knowledge of building trade works.

(c) Chief Storekeeper—Grade Misc. VI (£760-£025 p.a.).

The Works Superintendent for the custody, issue and replenishment of the General Stores, including building and electrical trades, and for maintaining stores records, etc. He should be fully experienced in stores organisation and in the duties involved.

Application of the desired of the control of maintaining stores records, etc. He should be fully experienced in stores organisation and in the duties involved.

Application of the control of the duties involved.

WONDAY, 5th June, 1961.

HAROLD PARTINGTON.

# COUNTY BOROUGH OF EAST HAM.

SENIOR ASSISTANT ENGINEER (GENERAL), A.P.T. IV (£1,185-£1,358). PRINCIPAL ASSISTANT ENGINEER (STRUCTURES), A.P.T. V (£1,355-£1,525).

Salaries in excess of the minima may be paid according to qualifications and experience. Subsistence allowances may be granted over a reasonable period to the persons appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms, returnable by 26th MAY, 1961, from the TOWN CLERK, Town Hall, East Ham, E.6.

# DEE AND CLWYD RIVER BOARD. SENIOR ASSISTANT ENGINEER, A.P.T. GRADE IV

APPLICATIONS are invited for the ABOVE VACANCY from Chartered Civil Engineers or Graduates.

VACANCY from Chartered Civil Engineers or Graduates.

Applicants must have experience of hydraulic and reinforced concrete design, and of the preparation of bills of quantities and contract documents. The successful candidate will be required to provide and maintain a car, for which N.J.C. Essential Users, Allowances for the contract of the contrac

G. A. WRIGHT, Executive Officer and Clerk. 2 Vicars Lane, Chester.

# BASILDON DEVELOPMENT CHIEF ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS:-

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS:—

(a) Assistant Engineer, Grade A.P.T. IV (Salary Scale £1,160-£1,310 per annum).

(b) Calary Scale £315-£350 per annum).

(c) Engineering Assistant, Grade A.P.T. II (Salary Scale £815-£960 per annum).

Applicants should have had suitable training and experience in the office of a municipal or consulting engineer, and should have obtained qualifications appropriate to the grade for which they are applying month's notice on either side; each successful candidate will be noticed to the tenancy of a Corporation house.

month's notice of the tenancy of a Lorentz will be eligible for the tenancy of a Lorentz will be eligible for the tenancy of a Lorentz will be a lorentz for the control of the control of

# APPOINTMENTS VACANT

# LINDSEY COUNTY COUNCIL.

# (AMENDED ADVERTISEMENT.)

#### HIGHWAYS DEPARTMENT.

BRIDGE ASSISTANT REQUIRED for established control of the stabilished and have an interest in structural control of the stabilished and have an interest in structural construction in structural construction in structural construction of the stabilished and have an interest in structural construction of the stabilished construction of the stabilished

salary.

N.J.C. Service Conditions apply. Five-day week.

Applications must be received by 19th MAY, 1961,

on forms obtainable from the COUNTY SURVEYOR,

County Offices, Lincoln.

2nd May, 1361.

#### MONTGOMERYSHIRE COUNTY

# HIGHWAYS DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENT of an ENGINEERING ASSISTANT on Grade A.P.T. III (£960-£1,140 p.a.).

Forms of Application and particulars of the appointment may be obtained from the undersigned, to whom applications should be returned not later than the 15th MAY, 1961.

P. E. WHITE, Clerk of the County Council.

County Offices,
Welshpool.
21st April. 1961.

BEDFORDSHIRE COUNTY COUNCIL.

BEDFORDSHIRE COUNTY COUNCIL.

APPLICATIONS are invited for APPOINTMENTS in new Traffic Engineering Section of County Surveyor's Department:

(a) Traffic Engineer, A.P.T. IV (£1,140-£1,310 per annum).

Applicants should hold Engineering Degree of a Pritish Council of the Counc

INSPECTOR OF BUILDINGS.

INSPECTOR OF BUILDINGS.

APPLICATIONS are invited for the ABOVE APPOINTMENT in the Borough Engineer and Surveyor's Department at a grouph Engineer and Surveyor's Department at a grouph Engineer and Surveyor's Department involves the supervision of major housing contracts, and applicants should have a though knowledge of the building trade.

Applications, stating private cases. Applications, stating previous appointments, and experience, together with the names of two referees, to the Borough Engineer and Surveyor by 31st MAY, 1961.

The provided of the Council must be disclosed. Appointment subject to medical examination.

Town Hall,

Town Hall, Rochdale, 5th May, 1961.

# BOROUGH OF BECCLES.

# WORKS OF SEWERAGE, SEWAGE DISPOSAL AND APPOINTMENT OF RESIDENT ENGINEER.

APPOINTMENT OF RESIDENT ENGINEER.

The COUNCIL invite APPLICATIONS for the TEMPORARY POST of RESIDENT ENGINEER or certain works of sewerage, sewage disposal and water supply, the latter consisting of water mains extensions, and the construction of a new reservoir (capacity state) of the construction of a new reservoir (capacity state) of the construction of a new reservoir (capacity of the works of porthwith. The works of sewage disposal during 1962.

The successful applicant will be required to tworks of the works of the works of the works of the works of the consulting sewage disposal. He will be required to take up his duties as soon as possible.

The salary offered will lie between \$1.200 and sewage disposal. He will be required to take up his duties as soon as possible.

The salary offered will lie between \$1.200 and experience. The conditions of the applicant's ability and experience. The conditions of the spoint of the proportion of the spoint of the spo

F. W. LEAH, Town Clerk.

# Municipal Offices, Beccles, Suffolk, 4th May, 1961. CITY OF WAKEFIELD. CITY ENGINEER'S DEPARTMENT.

CITY ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the FOLLOWING SUPERANNUABLE APPOINTMENTS:

(a) Assistant Architely—Grade A.P.T. III (£960-£1,140 p.a.).

Applicants must be A.R.I.S.A., and preference will be given to those having municipal experience. The commencing salary will be according to qualifications and experience. (b) A.P.T. III (£960-£1,140 p.a.).

Candidates must be members by examination of the R.I.C.S. or I.Q.S., and preference will be given to those having experience in local authority, housing, schools, and other municipal projects. The commencing salary will be given to those having experience in local authority, housing, schools, and other municipal projects. The commencing salary will be provided if necessary.

Housing accommunation.

A 5-day week is in operation.

Applications, stating age qualifications and experience, together with the names of two referees, to be sent to the CITY ENGINEER. Town Hall, Wakefield, by the 31st MAY, 1961.

SUPPLEMENT

# BOROUGH OF WILLESDEN.

APPLICATIONS are invited from suitably qualified and experienced persons for the FOLLOWING PERMANENT APPOINTMENTS:

(a) Senior Engineering Assistant within

MANENT APPOINTMENTS:

(a) Senior Engineering Assistant within Scale "A" (£1.400-£1.565 p.a.).

(b) Engineering Assistant within Grade A.P.T. III (£960-£1,140 p.a.).

(c) Engineering Assistants within Grade A.P.T. III (£815-£960 p.a.).

(d) (£645-£915 p.a.).

(d) (£645-£615 p.a.).

or all posts, except (a) above, London Weighting ayable.

(d) Engine (d) Engine (d) above, London Weighting is payable.

For all posts, except (a) above, London Weighting is payable.

It is payable in age limit, but for post (a) above, reference will be given to candidates having above average experience in structural engineering or sewer-age or highway works.

The Council are unable to assist with housing accommodation.

Forms of Application and Conditions of Appointment may be obtained from the Borough Engineer and Council are to the undersigned not later than MONDAY, 29th May, 1961.

(Signed) R. S. FORSTER, Town Clerk.

# BOROUGH OF ASHTON-UNDER-LYNE BOROUGH SURVEYOR'S DEPARTMENT.

# TEMPORARY CLERK OF WORKS (SEWER RECONSTRUCTION).

APPLICATIONS are invited for the TEMPORARY POST of CLERK OF WORKS in connection with a main sewer reconstruction scheme, estimated cost £44,000. This is one of a series of reconstruction schemes which the Council expects to carry out, and the position, although temporary, may extend giver several years, should have extensive experience in all branches of this type of work, including tunnelling in bad ground. The salary payable will be in accordance with Miscellaneous Grade VI of the National Salary Scales (£760-£625 per annum).

The provision of housing accommodation will be considered. The appointment and forms of application may be obtained from the Borough Surveyor, Municipal Offices. Ashton-under-Lyne, and completed forms should be returned to him by 24th MAY, 1961.

Town Hall.

Town Hall, Ashton-under-Lyne, 1st May, 1961.

# BOROUGH OF STRATFORD-UPON-AVON. SEWERAGE AND SEWAGE DISPOSAL WORKS

APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the ABOVE POST at a salary of £800 p.a. plus £150 p.a. subsistence allowance.

Applicants should have had considerable experience and be suitably qualified to supervise, under the direction of the Borough Engineer, major contracts of sewerage and sewage disposal works. The first contract is expected to star an estimated total of £150 p.a. substance to the substance of the control will consider the provision of housing accommodation.

Application Forms may be obtained from the undersigned, and should be returned by not later than WEDNESDAY, 17th May, 1951.

Borough Engineer and Surveyor.

Borough Engineer and Surveyor.

Municipal Office Control Contr

# PLYMOUTH. CITY OF

APPLICATIONS are invited for the APPOINTMENT of SENIOR ASSISTANT ENGINEER, Grade A.P.T. V (£1,310 to £1,480).
Applicants must be corporate members of the Institution of Civil Engineers and of the Institution of Municipal Engineers.
They must have had extensive experience on major road schemes rathe engineering. They must also be knowledge that the engineering. They must also be works being carried out by direct labour or by contract.
It is the practice of the Council to pay half the

works being carried out by direct issues of contract.

the practice of the Council to pay half the cost of household removal expenses up to a maximum contribution of £25.

Housing accommodation may be available in certain circumstance is superannuable, subject to meet a prominent in the superannuable, subject to meet a superannuable, subject to meet a superannuable of the subject to meet a superannuable of the superannuable of the subject to meet a superannuable of the subject to meet a superannuable of the subject to meet a superannuable of the subject to make the subject to superannuable of the subject to superannuable of the subject to subject to superannuable of the subject to sub

The Guildhall,

# URBAN DISTRICT COUNCIL OF

# HINDHEAD WITH CHURT DRAINAGE.

# READVERTISEMENT.

# APPOINTMENT OF RESIDENT ENGINEER.

APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the ABOVE APPOINTMENT to supervise the laying of 11½ miles of sawers and pumping mains, varying in diameter from 4in. to 12in., including house connections and the construction will two pumping stations.

The salary will be £1.500 per annum, and the appointment will extend, subject to satisfactory specific properties of the salary will be appointment will extend, subject to satisfactory anticipated to take two years. The appointment will be terminable by two months' notice on either side. Car mileage allowance will be paid on the essential user scale, mut exceeding 1,399 c.c.

The work will be under the direction of the Council's Consulting Engineers, MESSRS, JOHN TAYLOR AND SONS, London.

TAYLOR AND SONS, London.

TAYLOR AND SONS, London.

Abplicants, who should be Associate Members of Abplicants, who should be Associate Members of Abplicants, and must have hale experience of similar work, including work in tunnel, should apply in writing to the undersigned not later than Noon on MONDAY, 15th May, 1961, giving full particulars of age, qualifications and experience, and mames all two persons to whom reference may be made.

(Signed) J. N. DAVIES, Museum Hill,

# APPOINTMENTS VACANT

# COUNTY BOROUGH OF WEST HAM.

BONUS MEASURING ASSISTANT REQUIRED, with least five years' approved experience in measuring illiding works in all trades for incentive bonus. Salary within the range of £760-£825 per annum, according us London allowance. £25-£40 per annum, according

Salary within allowance, £25-£40 per annumber of plus London allowance, £25-£40 per annumber of the plus London allowance, £25-£40 per annumber of the plus London allowance of the plus London annumber of the BOROUGH ENGINEER allowance of the BOROUGH ENGINEER allowance of the BOROUGH ENGINEER allowance of the London a METROPOLITAN BOROUGH

POPLAR.

ENGINEERING ASSISTANTS (Two) REQUIRED by Poplar Borough Council. Salary Scale £815-£960 p.a. plus Weighting. Commencing salaries in accordance with qualifications and experience. The appointments provide ample scope for variety from the appointments provide ample scope for variety from the appointments provide ample scope for variety fighting, street furniture and installations, and drawing office duties.

Application Forms obtainable from BOROUGH ENGINEER AND SURVEYOR, Poplar Town Hall, Bow Road, E.3.

Closing date: First Post, MONDAY, 29th May, 1961.

BOROUGH OF WILLESDEN.

# BOROUGH ENGINEER AND SURVEYOR'S

APPLICATIONS are invited for the FOLLOWING APPOINTMENTS in the Building Surveyor's Section:

(a) General Assistants (Two Posts) within Grade A.P.T. II (E815-E986) p.a.). P. T. II (E815-E986) p.a.). London Weighting is payable in addition to both above salaries.

Applicants should have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors, or equivalent, and have had experience in the general work of a Building Surveyor's Office and Planning Acts. For one of the (a) posts, experience of dealing with the control of advertisements will be an advantage.

The Council are unable to assist with housing accommodation.

Details and Form of Application obtainable from the Borough Engineer, Town Hail, Dyne Road, Kilburn, N.W.S. and must be returned by 10 a.m. of MONDAY, 29th May, 1951. TOWN CLERK.

# CITY OF NEW SARUM. CITY ENGINEER'S DEPARTMENT.

#### CIVIL ENGINEERING INSPECTOR.

APPLICATIONS are invited for the APPOINTMENT of CIVIL ENGINEERING INSPECTOR to assist the resident engineer in the supervision of the construction of a new sewage treatment plant in Salisbury. Preference will be given to applicants with experience the supervision of the construction. The appointment will be for a period of two years at a salary of £15 per week. A casual user's car allowance will be paid.

Applications, giving full details of experience, the properties of the control that the co

GEO. RICHARDSON.

#### [ JTTOXETER URBAN DISTRICT

# WATER SUPPLY.

# APPOINTMENT OF CLERK OF WORKS

APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the APPOINTMENT of CLERK OF WORKS ta supervise the construction of two reinforced concrete reservoirs at Prestwood and supervise the construction of two reinforced concrete reservoirs at Prestwood and supervise the consulting supervise the concentration of the Council's Consulting Engineers, MESSRS. WILLCOX. RAIKES AND MARSHALL, 33 Great Charles Street. Birmiphams. 300 experience of reinforced concrete construction and the laying of water mains, and be well acquainted with the duties of a Clerk of Works. The appointment will be subject to satisfactory service, and will be terminated by one month's notice on either side.

Applications in writing, wind particulars of age. Applications in writing, will particulars of age. Applications in writing, will particulars of age applications in writing, will perfect and when disengaged, stating salary and allowances required, with the names of two referees, or copies of two recent testimonials, are to be sent to the undersigned not later than WEDNESDAY, the 31st day of May, 1961.

JOHN H. KENNY.

JOHN H. KENNY. Clerk of the Council.

Council Offices, Old Bank House, 72 High Street, Uttoxeter, Staffs.

# AMERSHAM RURAL DISTRICT COUNCIL.

# ENGINEER AND SURVEYOR'S DEPARTMENT. APPOINTMENT OF ASSISTANT ENGINEER—DRAINAGE.

DRAIMAGE.

APPLICATIONS are invited from suitably qualified persons for the ABOVE APPOINTMENT will be for a period of three years, with the possibility of extension, as the Council has an extensive programme envisaged. The salary will be in the range A.P.T. IIII/V (£950-£1.310), according to experience. A car allowance will be a complete to experience. A car allowance will be a complete to experience. A car allowance will be a complete to experience, a car allowance will be a complete to experience. A car allowance will be a complete to experience of general municipal works, particularly as to main drainage. In the proposition of Service: (b) the Local Government Superannuation Act; and (c) the termination by one month's notice in writing by either side. The Council will consider providing housing accommodation for the successful applicant, if required.

required.

Applications, stating age., qualifications and experience, accompanied by the names and addresses of two referees, should be addressed to the undersigned to arrive not later than First Post on 29th MAY, 1961.

H. E. BUXTON.
Clerk to the Council.

modesham House, Council Offices, 42 High Street, Amersham, Bucks.

# APPOINTMENTS VACANT

# HAYES AND HARLINGTON

CIVIL ENGINERING CLERK OF WORKS REQUIRED.

CIVIL ENGINERING CLERK OF A P.T. I. i.e., £645-£815 p.z. Salary within Grade A.P.T. I. i.e., £645-£815 p.z. pius London Weighting.

Duties consist mainly small road improvement and sewerage schemes. Subject to satisfactory service, the person appointed will be transferred from the person appointed will be transferred from the service with a natiopated. Working hours related to those of contractor, which normally attracts payment at overtime rates.

No housing accommodation available. Further particulars, Form of Application, etc. available from the undersigned, which, when completed, must be returned by 22nd MAY, 1961.

GEORGE HOOPER, Clerk and Solicitor.

Naves, Middx.

SENIOR and JUNIOR ENGINEERS REQUIRED for contracts in the East Midlands and Lincolnahire area. Senior Engineers must be experienced in the inforced concrete construction or roadway and in the construction. The positions are permanent and offer scope for wide and varied experience in all classes in a contract of the co scope for wide and varied experience in all cla civil engineering work. Superannuation scheme ated.—Please state age, experience and qualifi to A. MONK AND CO., LTD., P.O. Box 4, Sta Lincs.

Lincs.

Land surveyors for route location, Ghana.
Short tour commencing June.
Write Box V.4065, "The Contract Journal."

Write Box V.4065, "The Contract Journal."

Technical Assistant ReQUIRED to assist in the setimating department of building and chi regimeering companies. The setimating department of building and chi setimating companies. The setimating companies are set in the set of the se

A GENT/ENGINEER REQUIRED for medium-size contracts in East Anglia. The person appointed will be required to be well experienced, capable of working on his own initiative, and supervising severage scheme contracts up to £250,000. Application in writing should give brief particulars of 88, experience, and salary required, to 80x V.4039. "The Contract Journal."

ESTIMATOR, fully qualified, REQUIRED for London office. Capable of pricing large excavation of the projects. Good salary, pen applicant.—Apply, and car if necessary to the rapplicant.—Apply MARTIN COWLEY, LTD., (Cross, Derbyshire.

# CUBITTS

HOLLAND & HANNEN AND CUBITTS (G.R. LTC.

SEE PAGES 666 and 667

A DDITIONAL SALES REPRESENTATIVES urgent REQUIRED. Minimum age 25 years. Good salar with excellent prospects for advancement. Experience in contractors plant and machinery preferred—Appl 5. SAUNDERS (TRACTORS), LTD., Stilton, 689 Peterborough. Tel.: Yaxley \$21/2.

Peterborough. Tel.: Yaxley \$21/2.

OST AND BONUS SURVEYOR REQUIRED. This is an expanding company with head office in East Anglia. Applicants should be aged 25-35, well experienced in target bonusing and site measurement, capable of working on own initiative measurement, capable of working on own initiative personal of the personal office of the personal of the personal office of the personal of the personal office of the personal of the personal office of

JUNIOR ENGINEER REQUIRED by firm of civil engineering contractors. Based at head office. North Midlands. Good salary and prospects.—Write, siving age and details of experience, to Box V.4056. "The Contract Journal."

SENIOR ENGINEER REQUIRED by firm of civil engineering contractors. Based at head office. North Middlands. Good salary and prospects—Write, giving age and details of experience, to Box V.4057. "The Contract Journal."

WANTED. GENERAL FOREMAN, GANGER MEN.
capable of controlling large excavation works.
both in the South and North. — Apply MARTIN
COWLEY, LTD., Clay Cross, Derbyshire.

# ESTIMATOR

REQUIRED for interesting and varied tendering building contracts over a wide range of arice. Romedge of modern methods of construction essential position is permanent and carries a substantial stain and bonus, also entry into superannuation scheme after probationary period. Applications will be treated in the strictest confidence.—Applications will be treated in the strictest confidence.—Applications will stain gage, qualifications, experience to date, etc., to:

THE MITCHELL CONSTRUCTION CO.,
"T" Dept., Wharf Works, Peterborous

DETER LIND AND CO. LTD.—GENERAL FOREMEN

REQUIRED for: (a) Reinforced concrete structure
of high-class construction essential; building knowledge
would be an advantage; (b) for all types of heavy civi
engineering foundation and marine works—sound
knowledge of all forms of pile driving essential; experience
of reinforced concrete construction an advantageconty keen men with initiative and drive, who are able
to produce good work with economy, should apply
in writing, giving full details of age, experience, as
alary required, to Peter Lind and Co., Ltd., Romer
House, Tutton Street, London, S.W-1.

Flouse, Tutton Street, London, S.W.1.

Soils LaBoratorey Pensinker ReQuireD for sile investigation section, based on Rotherham, Applicants should have laboratory and site experience of boring, soil analysis and testing, Permanent position, with good prospects, bonus and superannuation schemes in operation. — Apply in writing to the Personnel Manager, TARMAC CIVIL ENGINEERING, LTD., Upper Wortley Road, Rotherham.

DUYER REQUIRED for an expanding building and civil engineering company with office at Building and civil engineering and company with acceptance, and pension after probationary period with good write, giving brief particulars of age, experience, and salary required, to Box V.4047, "The Contract Journal."

CIVIL ENGINEERING PLANNING ENGINEER, 25:35. for head office. Five years' site experience and onn year drawing office. Degree or equivalent essential please send full details of experience and essential full details of experience and experience to the control of the control of

House. London Road. North Cheam. Surrey.

A. MONK AND CO. LTD., Warrington, Lancs., Regulare Senior and Julylor Sitz Engliners. Applications invited from those who are experienced in the various duties and responsibilities associated with these positions. Permanent and progressive posts. Superannal stating age, full details of experience and qualifications, etc., to Personnel Management and Monk AND CO., LTD., Padgate, Warrington, Lancs.

Warrington, Lancs.

BENCH HANDS WANTED for modern Joinery shop.
Pius rates for skilled men. Bonus earnings
running at 1s. per hour, or better. Permanent Jobs
for good men. Call in person.—HIGGS AND HILL,
LTD., Crown Works, South Lambeth Road, S.W.B.

TAYLOR WOODROW (OVERSEAS), LTD., REQUIRE GENERAL FOREMEN for building and civil engineering work. Applicants should be time-served Carpenters and Joiners with supervisory experience overseas.—Apply in writing to Personnel Manager, Taylor Woodrow (Overseas), Ltd., Western House, Western Avenue, Ealing, W.S., quoting Ref. 6F(8), TWO K6745. Western Avenue, GF(B) TWO K6745.

#### ENGINEERS

Applications are invited from ENGINEERS in the age group 25-35 approx. to fill vacancies on a large civil engineering contract abroad. Only engineers with good practical experience; per considered. Previous engineering contracts, on the considered previous abroad on the engineering contracts, on the considered previous experience abroad on the engineering details of career and state whether married or single.

WRITE BOX V.3833, "THE CONTRACT JOURNAL."

GENERAL FOREMEN. TRADES FOREMEN and GANGERS REQUIRED for building and civit, engineering contracts in East Anglian Formandivit, persionable positions or produce of positions of positions

ATIO. "The Contract Journal."

ARA AGENT REQUIRED to supervise a number of ARA AGENT REQUIRED to supervise a number of ARA AGENT REQUIRED to supervise and AGENT A

WAGES CLERK, fully experienced in P.A.Y.E., REQUIRED in building and contractors' office, if applicant has book-keeping experience, this position can be progressive and pensionable.—Tel.: CANonbury 2476.

# JUNIOR CIVIL ENGINEER

WANTED for road works in Co. Tyrone.—Applica-tions. in writing, stating experience and salary expected, to:

J. J. SCALLON AND SONS, LTD., Civil Engineering Contractors, Irvinestown, Co. Fermanagh, N.I.

PLANNING AND PROGRESSING—Building and Cluit Engineering Contracts. This vacancy calls for a training in the industry to H.N.C. or L.I.O.B. standards, with a full knowledge of B. of Q. specifications and drawings, and some site organisation to present progress charts and schedules for contracts.—Applications should state fully age and history, to Wilson Lovatt AND SONS. LTD., Clarence Street, Wolverhampton.

AN expanding department within a large firm of building contractors REQUIRES FOREMEN for work on reinforced concrete structures in the London area. Opportunities exist for enterprising men of experience, and permanent positions are offered with a salary of £20 per week, together with additional incentives.—Apply, stating age, previous experience, etc., to Box V.4108, "The Contract Journal."

BUILDERS' ORDER/COST CLERK REQUIRED immediately. Permanent position with established firm at salary commensurate with experience offered. H. J. AND A. WRIGHT, LTD., Great Missenden.

# UNILEVER

UNILEVER, LTD., REQUIRE an ARCHITECT and ARCHITECTURAL ASSISTANTS (Qualified or approaching Finals) for their head office in London. They will be engaged on a wide range of buildings in the commercial, industrial and domestic helds for both the U.K. and overseas. These positions carry attractive models of advancement. Staff amenities include super property of advancement. Staff amenities medical and welfare service, a sports and social clubs, medical and welfare service details of experience and qualifications, should be sent to:

Head Office Staff Department (Ref. WF/78), UNILEVER. LTD.. Unilever House. Blackfriars, E.C.4.

MANAGER REQUIRED to take charge of the asphalt and macadam surfacing department, operating from York and covering the three Ridings of Yorkshire and adjusted counties, Pension scheme, Good prospects for further promotion.—Applicants should write, stating are and experience, to the Secretary, NORMAN W. DUNN AND CO., LTD., I East Mount Road, York.

Lesst Mount Road. York.

AMALGAMATED ASPMALTE COMPANIES. LTD...
REQUIRE an ESTIMATOR in the roads department of the state of the state

# APPOINTMENTS VACANT

D. T. BULLOCK AND CO., LTD., have vacancies to SHUTTERING CARPENTERS, LABOURERS, CONCRETORS, STEELFIXERS, PIPELAYERS, BRICK, LAYERS on sewerage works, roads and sewers contracts and industrial buildings in Leicestershire Staffordshire and Warwickshire,—Apply in writing in first instance, to Contracts Manager, D. T. Bullock and Co., Ltd., Northgate, Aldridge, Walsali, Staffs

BUILDERS' CLERK. Good opportunity for first-class purpose of the control of the c

WILLIAM COWLIN AND SON, LTD., REQUIRE FIRST-CLASS GENERAL FOREMAN, to be based in Bristol area. Must be capable of controlling a large building contract and co-ordinating all specialists subtrades. Knowledge of reinforced concrete and heavy foundation work essential. Position is permanent and pensionable.—Apply, stating age, previous experience, and salary required, to Stratton Street, Bristol. 2.

FORK TRUCK PLANT HIRE MANAGER REQUIRED. South London area. Knowledge of forklift truck sales; must be keen, with right type of enthusiasm and adaptability extension of present mechanical handling division essential. — Write, stating salary required, together with experience and any other qualifications to Box V-4054. "The Contract Journal."

GENERAL FOREMAN REQUIRED for civil engineer-ing contracts in North Wiltshire area. Must have good all-round experience, with particular reference to estimate the particular reference disposal schemes.—Write full details to CLARK BROS., Stratton Road, Swindon, Wilts.

# WIMPEY

AGENTS and SUB-AGENTS experienced in asphalt and macadam surfacing. REQUIRED for major motor-way contracts. Excellent opportunities for promotion to managerial positions in the expanding regional development of our asphalt and surfacing activities. The appointments are permanent and will carry good initial salaries. A car will be supplied, and lodging allowances will be paid in appropriate cases. A weeks' annual holiday—Applications, which will be treated in the strictest confidence, and should be made in the first instance, giving details of qualifications and experience, to:

J. E. Mahoney, Training and Personnel Officer, GEORGE WIMPEY AND CO., LTD., Mammersmith Grove, London, W.6.

VAL DE TRAVERS ASPHALTE. LTD.. REQUIRE EXPERIENCE ROLLED ASPHALT AND TAR-PAVING ESTIMATOR for their Midland office. Applications the sent to Roads Manager, 5 Lower Temple Street, Birmingham. 2.

EXPERIENCED SITE CLERKS WANTED for con-tracts in West Suffolk and Berkshire.—Write, giving age and full particulars of past history, to "R.E.C." SHEPHARD, HILL AND CO., LTD., Central Chambers, Ealing Broadway, W.S.

First-CLASS GENERAL FOREMAN REQUIRED for large building contract in the Herefordshire area. Apply, stating age, experience, and previous employers, to Box 1038, c/o Murray and Phelan, Ltd., Columbia House, Aldwych, W.C.2.

PIRST-CLASS GENERAL FOREMAN REQUIRED for large building contract in the Oxfordshire area. Apply, stating age, experience, and previous employers, to Box 1039, c/o Murray and Phelan, Ltd., Columbia House, Aldwych, W.C.2.

SITE ENGINEERS REQUIRED for sewerage works contracts in Lancashire. Good salary and conditions offered to young Engineers with setting-out ameasuring-up experience. — Write, stating age and qualifications or experience, to Box V.4997, "The Contract Journal."

QUARTITY SURVEYOR, well experienced, RE-QUIRED for site measurements, preparing interim valuations and final accounts on all classes of building and civil engineering work. Persion scheme in opera-tion.—Write in confidence, stating size, experience, and salary required, to General Manager, Construc-tional Dept. CAWOOD WHARTON AND CO., LTD., Southlands. Harrogate, Yorkshire.

# **BUILDING AGENT-CONTRACT MANAGER**

Substantial national building and civil engineering contractors REQUIRE one or two men in thirty to carly forties age group who could confidently undertake the duties of Site Agent an building contracts of the order of 5.1m. Necessary qualifications include technical training and wide experience. a successful candidates would be appointed agents on contracts, and after evidence of successful performance there would be opportunities of promotion to Contract Manager based on West London office. Commencing salary in range £1.500-52.500, depending on many contracts and included the successful contracts. The contract of the contract of

BOX V.4059. "THE CONTRACT JOURNAL."

CASMIER/SITE CLERKS REQUIRED for civil engineering contracts in Yorkshire and Lancashire Permanent position, but must be prepared to travel. Good payment and conditions.—Write, stating experience, and previous employers, ID Box V.4098. "The Contract Journal."

CONTRACTS MANAGERS (Two) REQUIRED, one for London and one for Birmingham. Must have had previous experience in charge of area office preferably dealing with scaffolding contracts for building and civil engineering work. — Apply In writing, giving ful details of experience, to Biss v.4103. "The Contracts Journal."

REINFORCED CONCRETE and civil engineering contractors REQUIRE young ENGINEER, preferably qualified, for measurement and setting-out work. Permanent, progressive position. Please give details of training and experience.—SHELLABEAR PRICE CONTRACTORS, LTD., Auckland House. New Zealand Avenue. Walton-on-Thames, Surrey.

TARMAC have vacancies for SENIOR and IUNIOR LABORATORY ENGINEERS for suit testing and concrete quality control in head office and site laboratories. Permanent special properties, with good prospects, salary commenced with experience; bonus and superannuation schemes in operation.—Applications to the Personnel Officer, TARMAC CIVIL, ENGINERING, LTD., Ettingshall, Wolverhampton.

# APPOINTMENTS VACANT

PERSONAL ASSISTANT to General Manager of sportsground contractors REQUIRED. Must be capable of supervising labour and familiar with landscape and sportsground sportsground sportsground experience, Salary according to experience, and vehicle provided if required.—Write Box V.4071, "The Contract Journal."

EXPERIENCED DIAMOND BRILLERS for site exploration work in U.K. — Application should be made in writing, stating experience, age, mobility availability, to the Contracts Manager, SOIL MECHANICS, LTD., 65 Old Church Street, London, S.W.3.ANICS,

FARM MECHANIC for large arable farm. Must be first-class gas and electric welder, conversant with all modern machinery. New house in village five miles Cambridge.—T. B. ROBINSON, Lolworth Grange, Cambridge. Phone: Madingley 274.

VACANCY for skilled FITTER.—ASPHALT AND CONTRACTORS PLANT. Phone: GULliver 7171.

#### PLANT SALESMAN

Our expanding business necessitates the employment of another SALESMAN in the Midlands area. If you have good plant knowledge, can sell J.C.B. excavators, compressors and concrete them with our telephone us. An established future with high earnings assured.

MODERN PLANT SALES, L. Wolverhampion Road, Oldbury, Birm Telephone: BRQadwell 2571.

EXPERIENCED SOFT GROUND BORING FOREMAN for site exploration work in U.K.—Application be made in writing, stating experience, age, MECHANICS, LTD., 65 Dtd Church Street, n. S.W.3.

MEARS BROS. (CONTRACTORS). LTD.: Head Office. 154 Sydenham Road. S.E.Z6. REQUIRE UNIOR ENGINEERS with some experience, for site work in Southern Area. Ability to use inustruments essential. — Apply Personnel Manager at above address.

URGENTLY REQUIRED: SENIOR and JUNIOR ENGINEERS. Ability to work with minimum supervision on sites throughout the North.—Written applications, giving full particulars, to Box V.4130, "The Contract Journal."

CYPIL ENGINEERS.—Excellent opportunities for a progressive career.—See important announcement of RICHARD COSTAIN, LTD., on page 589 of this Journal.

OUTSIDE SUPERVISOR REQUIRED by old-established Midlands builders, to organise and develop
the outside organisation. Contracts cover major flat,
school, hospital, factory and housing schemes. A
tradesman background is required, and the post is
and pensionable.—Write, stating brief
particulars and pensionable.—Write, stating brief
age, experience, to Box V.4126.

# PLANT ENGINEER

REQUIRED by London building and civil engineering contractors, for interesting and responsible position, and to assist plant manager. Mechanical engineering qualifications, with workshop experience, essential, and some knowledge ul contractors' plant desirable. Car provided.—Apply, in writing, stating age, training, qualifications, experience and salary expected, to:

J. JARVIS AND SONS, LTD., 239 Vauxhall Bridge Road, London, S.W.1.

TRACTOR AND EXCAVATOR MAINTENANCE ENGINEERS REQUIRED. Good experience of repairs to county and international crawler tractors and Smith equation (organization and smith experience). Successful applicants must have current driving licens. Successful applicants of quick promotion in expanding organisation about the must into new workshops at Springwell, Washington, Co. Durham.—Please apply in writing or cersonally the JOHN ROULSTONE. LTD., 49/50 Rallway Arches, Newsastie uses Tyne.

Bersonalv ts JOHN ROULSTONE, LTD., 49:50
SALARY £1,200 per annum for ASSISTANT in Building and Civil Engineering, with sound knowledge of all trades, ability to read drawings and control of the sound knowledge of all trades, ability to read drawings and service of the sound knowledge of all trades, ability to read drawings and control of the sound for the sound fo

# GABLE CONSTRUCTION CO., LTD.

REQUIRE for large housing contract starting lune at Slough, Bucks. SITE AGENT, SUB-AGENT and GENERAL FOREMAN. Applicants must be fully experienced and have had full charge of similar contract from start to finish. Living caravan on site, if required. Permanent position. Pension scheme.—Apply. with full details of training, experience, etc. to:

GABLE CONSTRUCTION CO., LTD., 54 Garratt Lane, S.W.18, Telephone, VANdyke 6171/2/3.

TAYLOR WOODROW (OVERSEAS). LTD.. REQUIRE PRODUCTION FOREMEN. QUARRY FOREMEN for civil engineering work on dam project in Wester Apoly in writing to a synderic work of the Western Mouse, Western Woodrow (Overseas). Ltd. Western Mouse, P. Quoting Ref. P. Quiting Ref. P. Quiting Ref. Quiting Wish and Servers in the Mome Counties. Good salary and company car projected. Own staff advised.—Write Box V.4113. "The Contract Journal."

CONTRACT SUPERVISOR REQUIRED by siling specialists. Should be prepared to travel in British Isles: car provided. Superannuation scheme. Good prospects for right man.—Apoly JOHN GILL (CONTRACTORS), LTD., 123 Pall Mall. London, S.W.1.

SUPPLEMENT

QUANTITY SURVEYOR (qualified) REQUIRED by the SCOTTISH SPECIAL HOUSING ASSOCIA-TION, LTD, for Glasgow office. The most is superannuable under the Local Government Superannuation Acts. Salary scale £695-£1.385 p.a., with placing for age and experience.—Applications, with full particulars, to the Scretary, 18/21 Palmeraton Place, Edinburgh, 12.

Edinburgh 12.

THE LONDON FERRO-CONCRETE CO., LTD., REQUIRE a SENIOR ESTIMATOR, experienced in tendering for building and civil engineering work-pension scheme. Housing—details at interview. Apply, giving full details age, experience, and salary required, to Chief Estimator. THE LONDON FERRO-CONCRETE CO., LTD., Maxted Close, Hemel Hempstead, Herts. Tel.: Boxmoor 3810.

TNGINEER with site experience REQUIRED to train as Estimator with civil engineering company in West London. Excellent opportunities for experience and advancement.—Apply, with details, to JAMES MILLER AND PARTNERS, LTD., Pump Lane, Hayes, Middlesex.

#### APPLICATIONS

Are invited from men in the age group 30-40 for the position as MANAGER of a precast concrete works which is about to be formed as a subsidiary to contracting organisation in the north west. Also, must be able to plan his properties of the properties of the properties of the properties of the design of form work. Some knowledge of prestressed work would be advantageous. Salary up to £1,600.—Reply, stating age, experience, qualifications and salary required, to:

BOX V.4092. "THE CONTRACT JOURNAL."

BUILDING SURVEYOR, capable of running contracts between £10,000 and £300,000, ReQUIRED for permanent position with an expanding organisation. Pension scheme is in operation.—HUMPHREYS, LTD., Market Road, Plympton, Plymouth.

EXPERIENCED BUYER REQUIRED by civil engineering and building contractors. A head office appointment, near Reading, Berkshire. Permanent positivity good salary and pension rights, etc., offered to keen and energetic man.—Write in first instance, giving details of experience, past employers, etc., and age, in confidence, to Box V.4118, "The Contract journal."

Journal."

MICHIGAN.—SERVICE ENGINEER REQUIRED in the West Country. With previous experience in the heavy earthmoving held. Must be able to work on own initiative and will be required area.—Please write, giving the provided in the previous of the previou

# ESTIMATORS and QUANTITY SURVEYORS

Experienced in civil engineering and building works, for R.E. rate of England, and is be based on the area office at Stockton-on-Tees. Excellent prospects in a newly developing area. Pension scheme.—Apply, in writing, giving details of training, experience, and stating age and salary required, to:

S. J. Pediar, Esq., M.A., Secretary, ROBERT M. DOUGLAS (CONTRACTORS), LTD., 395 George Road, Erdington, Birmingham, 25.

RICHARD COSTAIN. LTD.—Personnel Department.

(1) PERSONNEL OFFICER REQUIRED to recruit professional and technical staff for the building and technical staff for the building and the staff of the staff

Road, London, S.E.1.

SENIOR QUANTITY SURVEYORS REQUIRED to contracts in this country. Must is experienced in taking-off and measuring for interim valuations variations and final accounts for building and civil engineering works up to £500,000. Good salaries pension scheme carrying life assurance benefits. Applicants should apply in writing, stating age, experience, qualifications, and salary required, to the Potonnel Manger, Estimatory Teculired, to the control of t

# MOTORWAY PROJECT MANAGER

Applications are invited for the above position from men with a successful record with civil engineering contractors in control of motorway construction. It is essential that the applicants should have had considerable experience with civil engineering contractors in positions of responsibility, and that they should be thoroughly familiar with all aspects of contract management. This position commands a generous salar for contract management, and the provision of the provision

60/62 St. Martin's Lane, London, W.C.2.

A SSISTANT QUANTITY SURVEYOR, aged 22-32, REQUIRED by MYTON, LTD. (a member of the Taylor Woodrow Group), for site measurement and interim valuations. Pensionable position, with excelent prospects.—Replies in confidence, with full particulars, to Personnel Manager, Myton, Ltd., Western Avenue, Ealing, W.S.

JUNIOR ENGINEER REQUIRED for Edinburgh area.

JUNIOR ENGINEER FOR E

SITE CASHIER, fully experienced W.R.A. wages etc., REQUIRED for civil engineering contractors Lancashire. Good prospects and permanent position Written applications, stating full particulars, to Boy V.4140, "The Contract Journal."

#### APPOINTMENTS VACANT

THE NORWEST CONSTRUCTION CO.. LTD., REQUIRES an additional ENGINEER for the Company maintaining strong the appointment is at head office and will be concerned with the organisation of maintaining contracts for gas and water authorities throughout the country. This will entail some visiting and short stays an contract sites. Applicants should have had at least three years' practical experience of sites in a position of responsibility, and be familiar with the laying and testing of spun-iron, asbestos and welded steel mains. Some design experience would be advantageous. A permanent position is intended, Applications in writing to The Norwest Construction Co., Ltd., Ruthven Road, Liverland, Liverpool, 21.

DLANT MANAGER—Contractor's Plant Manager
REQUIRED to take complete charge of plant
administration repair and maintenance at the main
plant depot of HARBOUR AND GENERAL WORKS,
LTD., in Morecambe, Lancs. A suitable candidate
would be a Senior Civil Engineer with extensive site
experience. The post is permanent and progressive.
Applications, marked "Conhdential." to Harbour and
General Works, Ltd., White Lund, Morecambe, Lancs.

Applications, marked "Confidential," to Harbour and General Works, Ltd., White Lund, Morecambe, Lancs, SITE ENGINEERS/SURVEYORS REQUIRED by civil engineering contractors based in Hull. Experienced setting-out, measuring, valuations and final experienced and all the sasurance scheme. Excellent prospects.—Write, giving full details in strictest confidence, to Box V.4139, "The Contract Journal."

POREMAN DIVER REQUIRED. Senior position. Knowledge all aspects underwater work and salvage entails estimating experience advantage; proven ability control operations on number of sites. Eventual residence South Wales essential; constant travel throughout Great Britain and abroad. Salary and commission by arrangement.—Details past experience, age, etc., to UNDER WATER WELDERS AND REPAIRERS, LTD., Roath Basin, Docks, Cardiff.

SITE ENGINEER REQUIRED for contracts in Lincolnship: Experienced in setting-out, measurement, records, etc. Permanent position. — Apply THE WINTON CONSTRUCTION CO., LTD., Eastgate, Louth, Lincs.

# BITUMINOUS MATERIALS CHEMIST

REQUIRED for a senior post by a leading asphalt company. Duties will consist of the overall technical supervision of road making materials, together with the organisation of routine testing systems and their practical applications of the systems and their practical applications are expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected to provide evidence of experience in a similar expected by the systems of the systems of

WRITE BOX V.4076, "THE CONTRACT JOURNAL."

SITE CASHIER.—Applications invited for the above position for vacancy in Midlands area. The position is use of much responsibility and calls for a fully experienced man previously holding similar position been covered by fidelity insurance. Must be reasonably mobile. Good terms and conditions offered to suitable man. Age range about 28 to 46 years.—Apply in confidence to WILSON LOVATT AND SONS, LTD.. Clarence Street, Wolverhampton.

Clarence Street. Wolverhampton.

TAYLOR WOODROW (OVERSEAS). LTD., REQUIRE GENERAL FOREMEN for housing scheme in Ghana. Applicants must have wide supervisory experimince overseas on similar projects.—Apply in writing to Personnel Manager, Taylor Woodrow (Overseas), Ltd., Western House, Western Avenue, Ealing, W.S., quoting Rel. GF,TWO,K6747.

Quoting Rei. GF,TWO,K6747.

EXCEPTIONAL opportunity for ambitious man in early 20s to join small London firm municipal and exporters, view eventual management. Knowledge advantage but not essential—Wite tulk details, salary, etc., to Box V.4138, "The Contract Journal."

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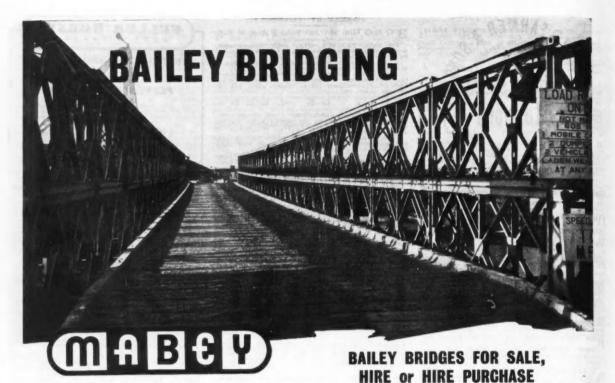
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(1) Extension to Kitchen at Dearnside Secondary School.

(2) Reopassation of Housecraft Room at Mewarough Grammar School.

(3) Organisation of Housecraft Room at Mewarough Grammar School.

The Seclifications and Drawings are available on application to the Divisional Architect, Planet Road, Adwick-le-Street, near Doncaster.

Sealed Tenders must be addressed to me, the undersigned, and received at Room 5, County Hall, Wakefield, not later than 9 a.m. on TUESDAY, the 13th June, 1961.

BERNARD KENYON.
Cierk of the County Council. COUNTY BOROUGH OF

DEVELOPMENT OF HOSTEL SITE-

TENDERS are invited for the CONSTRUCTION of a SERVICE ROAD approx. 800 lin. yd. long, running parallel with Willenhall Road, together with Surface and Foul Water Draininge, and ancillary works. Drawings can be inspected, and Tender documents may be be inspected, and Tender documents may be be inspected, and Tender documents and the property of the second of the se

BOROUGH OF FARNWORTH. PUBLIC BATHS.

TENDERS are invited for ALTERATIONS to the SLIPPER BATHS and Boiler House, and ancillary works, at the PUBLIC BATHS, KING STREET,

SIPPER BATHS and Boiler House, and ancillary works at the PUBLIC BATHS, KING STREET, Forman and General Conditions of Contract may be inspected at the Offices of the Borough Engineer and Surveyor. Town Hall, Farnworth copies of the Specification, Bills of Quantities and Form of Tender may be obtained on application. Tenders must be returned to the undersigned not later than St JUNE, 1901. The Council do not bind themselves to accept the lowest or any Tender.

THOMAS HITCHEN.

BOROUGH OF HEMEL HEMPSTEAD. DEMOLITION OF SEWAGE TANKS.

TENDERS are invited for the DEMOLITION of SEWAGE TANKS and LEVELLING THE SITE at JARMAN FIELDS. Hemel Hempstead.
Tender documents can be obtained from the Borough Engineer, High Street, Hemel Hempstead, and should be returned to the undersigned not later than 12 Noon on TUESDAY, 23rd May, 1961.
The Corporation do not bind themselves to accept the lowest or any Tender.

C. W. G. T. KIRK, Town Clerk

Town Hall. High Street. Hemel Hempstead. 4th May, 1961.

WORCESTER. OF ALL HALLOWS BIRDPORT IMPROVEMENT.

BROAD STREET TO COPENNAGEN STREET,

FIXED.RATE TENDERS are invited for the ABOVE
WORKS, which comprise Widening, Reconstruction and
Drainage for a length of 250 lin, vid. of 53ft. wide
Road, Included in these works is the Laying of a
fin. dia. Water Main for a length of 185 lin, vid., and
the Construction of a Short Length of Service Road.
Documents obtainable from the City Engineer and
Surveyor, 22 Bridge Street, Worcester, upon payment
of a Two Guinea deposit which will be returned on
receipt of a bona-fide Tender.

The Council of the Street of the Stree

BERTRAM WEBSTER,

CITY OF MANCHESTER. SALE (MANOR ROAD) HOUSING DEVELOPMENT.

ROAD AND SEWER CONTRACT.

TENDERS are invited for CONSTRUCTING 16.500
yd. BITUMEN MACADAM CARRIAGEWAY
150 lin. yd. SEWERAGE, 9in. to 30in. dia., and 10. yd. BITUMEN MACADAM CARRIAGEWAY, 2.550 lin. yd. SEWERAGE, 9in. to 30in. dia., and ancillary works. Tender documents (returnable by 9.30 a.m., MONDAY, 5th lune, 1961) obtainable from the CITY SURVEYOR (Room 228), Town Hali, Manchester, Z.

SURVEYOR (Room 228), Town Hall, Manchester, 2.

STIMATOR, QUANTITY SURVEYORS REQUIRED
as Assistants at head office. Knowledge of civil
and buildrug. And recedite an about a continuous con

Shemied, 11.

WANTED immediately. ENGINEER/AGENT for sewage disposal works contract in London. Good prospects. Superannuation scheme. Car provided. Please write. stating age. experience, and salary resulted in the contract of the contract

BOROUGH OF WIDNES. CONTRACT NO. 400.

HOUGH GREEN RECREATION GROUND (7.9 ACRES)—PORTION NO. 1.

TENDERS are invited for the ABOVE CONTRACT, comprising: Site Clearance: the Levelling, Grading and Subsoil Drainage of 4.6 acres; Road and Footway Construction (1.470 s. vd.); Foul Drainage: Frection of Chan Link Fencing (880 lin. yd.). This portion of the Contract does not include seeding and planting. Copies of Specification. Bill of Quantities and Form of Tender may be obtained from the Borough Engineer, country withdraw, or a bon-inde Tender not subsequently withdraw, of a bon-inde Tender not subsequently withdraw, of a bon-inde Tender not subsequently withdraw of a bon-inde Ten

Town Hall, Widnes. May, 1961.

BOROUGH OF WREXHAM. NURSERY SITE-REGENT STREET.

NURSERY SITE—REGENT STREET.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of a SEWAGE EJECTOR STATION. Including Sump and Rising Main.

Bills of Quantities and full particulars may be obtained from MESSRS. WARD. ASHCROFT AND obtained from MESSRS. WARD. ASHCROFT AND pair Street. Consulting Engineers, 38 The Temple, Dair Street. Consulting Engineers, 38 The Temple, 52 2s., which will be refunded not receipt of a bona-flow that the pair Street. The consultance of the pair Street. The council does not the undersigned not later than the council does not bind Itself to accept the lowest or any Tender.

PHILIP J. WALTERS.

Town Clerk.

Guildhall, Wrexham, May, 1961.

ROROUGH OF DAGENHAM. STREET WORKS-DAGMAR ROAD.

TENDERS are invited for THIS WORK, which consists or approx. 855 sq. yd. of Reinforced Concrete Carriageway with Kerb, Paving and Surface Water

Carriageway with Kerb, Paving and Surface Water
Plans and Sections may be inspected and the Specifications, Conditions of Contract, Forms at Tender
and Bills of Quantities may be obtained from the
Borough Engineer and Surveyor, on payment of a
deposit of £2 2s., refundable on receipt of bona-fide
tender documents.

Tenders must be delivered to me by 30th MAY,
1961.

KEITH LAUDER.

BOROUGH OF SCUNTHORPE. WESTCLIFF SEWAGE PUMPING STATION NO. 1. AMENDED ADVERTISEMENT.

AMENDED ADVENTISEMENT.

TENDERS are invited from suitably experienced contractors for the CONSTRUCTION of this PUMPING STATION at SCOTTER ROAD, Scunthorpe, including a Reinforced Concrete Substructure, Brickwork Superage of the Contract Contract documents may be obtained from, and the Drawings inspected at, the Office of the Borough Surveyor, Mr. F. J. BOWYER, A.M.I.C.E., Laneham Street, Scunthorpe, Lincs., on payment of a returnable deposit of £2 2s. Sealed Tenders, in the envelope provided, must be received by the TOWN CLERK, Municipal Offices, 34 High Street, Scunthorpe, not later than 12 Noon on TUESDAY, 6th June, 1961.

WIGAN RURAL DISTRICT COUNCIL.

SHEVINGTON MOOR SEWERAGE.

CONTRACT NO. 2.

CONTRACT NO. 2.

TENDERS are invited on a Fixed-price Basis from experienced contractors for the FOLLOWING WORKS:

(a) Approx. SOO lin. yd. of 6in. Sewers, with Mannoles.

(b) A Smail Pumping Station and Pumping Main.

(c) Drains. 600 lin. yd. et 4in. and 6in. House of the Sewers, with Mannoles.

D. awings may be inspected, and the Contract documents obtained, at the Onces of the Engineers, McSSRS. CHARLES J. LOMAX AND SON. Chartered Civil Engineers, 6ib Barton Arcade, Deansgate. Mannolester, 3. on payment or a deposit or two Guneas Council), which and evable to wipan Rural District Council, which are devable to wipan Rural District Council. Which are devable to reder is Sewerage."

must be returned to the undersigned not later than Noon on MONDAY, 5th June. 1901.

The lowest or any Tender will not necessarily be accepted.

ROBERT GASKELL, Clerk or the Council. incii Offices

Wigan, Lancs.

GENERAL FOREMAN REQUIRED, Manchester/
Chester areas. Applicants must have flad good alli-round experience on general civ.l eng.neering work, particularly in regard to reintored concrete or roads and sewers, and be capable of producing first-class work. Pension scheme and profit-sharing scheme in operation, which applicants will be eligible to Join atter a suitable probationary period—App.y for application form, quoting flet. GF/CJ, to Director, HENRY BOOT A.10 SO45 (CVI.L ENGINEERING), LTD., Banner Cross Hall, Sheffield, 11.

JUNIOR ENGINEER REQUIRED for Resident Engineer's O.h.ce at Balderhead Reservoir, near Barnard Castle. Salary £960 p.a.—App.ications to EDWARD SANDEMAN, KENNARD AND PARTNERS, 171 Victoria Street, London, S.W.1.

PILING AND FOUNDATION specialists REQUIRE a man for setting-out on sites throughout the country. Need not be qualified, but must be conscious and reliable, and prepared to travel requirements with the conscious and reliable, and prepared to travel requirements. The Contract Journal."

COUNTY BOROUGH OF EAST HAM.

APPLICATIONS are invited for the FOLLOWING TEMPORARY APPOINTMENT of approx. 18 months on a contract at East Ham. Applicants must have had experience in the construction of modern steel-framed huildings.

ings: Clerk of Works (A.P.T. II—salary up to £1,000 Forms of Application, returnable by 26th MAY, 1961, from the TOWN CLERK, Town Hall, East Ham,

CITY AND COUNTY OF BRISTOL. APPOINTMENT OF ASSISTANT ENGINEERS.

APPOINTMENT OF ASSISTANT ENGINEERS.

APPLICATIONS invited for FOLLOWING POSTS in type in the property of the p

engineering experience, including design of bridges and structures in reinforced concrete chained as fittish University degree in Civil Engineering and or lie Corporate Members of Institution of Civil Engineers or Institution of Structural Engineers, Posts permanent, pensionable: medical examination and, except in case of an officer transferred from service of another Local Authority, probationary period of the control of

CITY OF WESTMINSTER.

ASSISTANT SUPERVISOR REQUIRED. Public Cleansing and Transport and Baths Department. Commencing salary, according to experience and qualifications, on scale \$15-596 or experience and qualifications, on scale \$15-596 or experience and qualifications, on scale \$15-596 or experience and qualifications, perference given to applicants holding Testamur of Institute of Public Cleansing or Ordinary/Higher National Certificate in Mechanical Engineering, or equivalent qualifications. Superannuation contributions 2 per cent; 5-day week.

week.
Applications, stating age, experience, qualifications, present post and salary, with names, etc., of two referees, to TOWN CLERK, City Hall, Charing Cross Road, W.C.2, by 20th MAY.

BROMSGROVE URBAN DISTRICT RESURFACING-WORCESTER ROAD, STOURBRIDGE ROAD AND ALCESTER ROAD.

The Council invite TENDERS for the FOLLOWING

(1) Worcester Port

The Council invite TENDERS for the FOLLOWING WORKS:

(1) Worcester Road (St. John Street to Factory Lane)—Heat and Plane existing Surface and Lay by Machine 11-in. Rolled Asphalt.

(2) Stourbridge Road (High Street to Bewell Head)—Heat and Plane existing Surface and Lay by Machine 1in. Rolled Asphalt.

(3) Aspect of the Street to Bewell Head (St. Street to Bewell Head)—Heat and Plane existing Surface and Lay by Machine 1in. Rolled Asphalt.

(4) Patching small areas of Asphalt Carriageways.

Bills of Quantities and Specification may be obtained from the Engineer and Surveyor. Council House, Bromsgrove, on a deposit of £2 2s. The desaist will be return of all documents a bona-hee Fender and the same Office.

Tenders, in plain sealed envelopes, endorsed "Asphalt Surfacing," are to be delivered to the undersigned sais later than Noon on SATURDAY. 27th May, 1961. The Council do not blind themselves to access the lowest or any Tender.

F. A. IESSOP. Clerk to the Council. Council House, Bromsgrove. 5th May, 1961.

Sth May, 1961.

STITE ENGINEER or ENGINEERING ASSISTANT

RECU'RED on civil engineering contracts, Burton',
Leicester areas. Applicants must have had all-round
civil engineering experience and be accustomed to
setting-out, measuring-up and preparation of monthly
certificates, etc. Permanent and pensionable position
to suitable applicant, with profit-sharing scheme in
operation.—Apoly for application form, quoting Ref.
SE/C, to Director, NENRY BOOT AND STRIS
(C/VIL ENGINEERING), LTD., Banner Cross Hall
Shemed, 11.

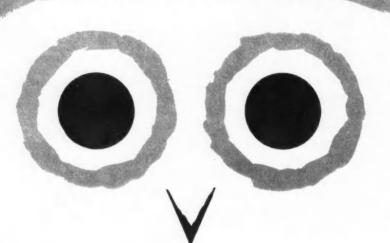
CHIEF INSPECTOR REQUIRED for Balderhead Reservoir, mear Barnard Castle. Experience of cut-off trenches and earth dam construction required Salary East p.a. pulsus Ea 3s. p.w. subsistence. Apolications to EDWARD SANDEMAN, KENNARD AND PARTNERS, 171 Victoria Street, London, S.W.1.

AND PARTNERS, 171 Victoria Street, London, S.W.1.

CENERAL FOREMAN REQUIRED, Shrewsbury area.

Apolicants must have had good all-round experience on general civil engineering work, particularly in regard to roads and sewers, and be capable all producing first-class work. Pension scheme and profitsharing scheme in operation which apolicants will be el'b'e to lon after a suitable probationary parised. Apoly for apolication form, quoting Ref. GF.Cl., to D'rector. HENRY BOOT AND SONS CIVIL ENGINEERING, LTD. Banner Cross Mail, Sheffield, 11.

CENERAL FOREMAN REQUIRED for contracts in London, Surses and Kent. Experienced in all Typus of contracts from £100,000 to £500,000. Salary £1,200 upwards, according 16 experience. Pension scheme and assistance with housing after proving period. W. LLEWELLYN AND SONS, LTD., 79 Davies Street, W.1.



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THE

# CONTRACT JOURNAL

INCORPORATING

THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

# THE CONTRACT JOURNAL

Incorporating
THE BRITISH CONSTRUCTIONAL ENGINEER

THE CONTRACTOR

No. 4,272 Vol. CLXXXI May 11, 1961

Editor:

LAWRENCE McCARTHY

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# Advertisements

Advertisement rates may be obtained on application to R. Binfield, Advertisement Manager.

# CONSTRUCTION AND THE COMMON MARKET

THE Common Market is an established fact. Started by France, Germany, Italy and the Benelux countries it was the creation of some of the most adventurous thinking of our time. This bold and idealistic plan transgressed national frontiers and prejudices but the prizes it offered both economically and politically were tremendous.

Britain's position was a difficult one. Agricultural and other industrial interests had to be considered and also the family of nations in the Commonwealth. For joining the Common Market meant the end of Commonwealth preferences.

Now, after years of indecision and perhaps with encouragement from the new American administration as against discouragement from the old one, Britain seems to be moving towards the Common Market. The decision to join, if taken, cannot be based on an arithmetical summation of advantages and disadvantages. Rather it must be an act of faith, a momentous decision, which may alter the course of future events decisively and fundamentally.

And yet, quite naturally, individual industries will be reflecting upon the likely effect upon their own affairs. What will be the effect upon the constructional industries?

The Common Market, in effect, aims to do for Europe what federation has done for the United States. Quotas and tariffs between member countries will ultimately be abolished and external tariffs will be the same. Labour and capital will eventually be able to move freely between member countries. There will in fact be complete economic integration. The pipe-dream of a United States of Europe will become a reality.

In such a far reaching scheme of things it is inconceivable, assuming Britain decides to join, that any major industry will not be affected to a greater or lesser extent. Indeed the long-term effects are impossible to forecast but in the more immediate future it does seem that the constructional industries might be affected less than most. At the present time there is nothing, in theory, to prevent British contractors from tendering for jobs on the Continent or setting up subsidiaries there, or for Continental contractors from tendering for jobs in Britain or setting up subsidiaries here. But contracting demands local contacts and knowledge and with efficient constructional industries on both sides of the Channel there is little inclination for contractors to cross it in either direction in search of work. The Common Market might provide more scope for the formation of international consortia, but in general it seems unlikely that British contractors would suffer any large scale invasion from the Continent.

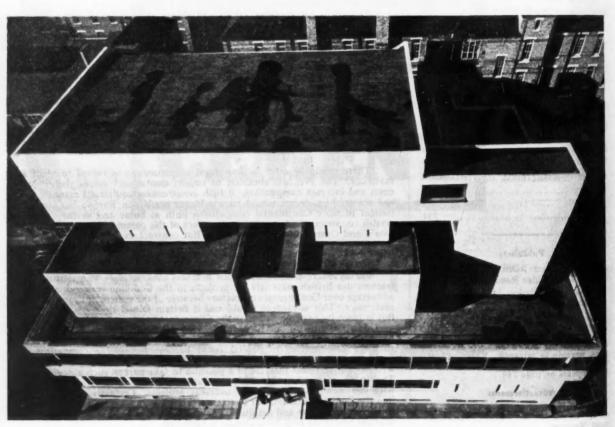
There would however be important repercussions in regard to plant and materials. The eventual abolition of import quotas and duties should lower costs and increase competition. British construction equipment manufacturers and material producers would have a bigger market in Europe but would be subject to more Continental competition both at home and in the Commonwealth countries, the latter being the effect of the common export tariff which would end Commonwealth preference. But contractors in Britain should have the advantage of a wider and cheaper choice of plant and materials since imports from the Continent would be quota and duty free.

Finally, there is the question of overseas contracting. Where British contractors use British materials for projects in the Commonwealth they have an advantage over Continental contractors because of the system of Commonwealth preference. This advantage would end if Britain joined the Common Market. But is must be remembered that the Common Market is establishing powerful new financial institutions to promote overseas development. It may also, as has been noted, foster international consortia of contractors which if harnessed to these new sources of capital could become formidable competitors for overseas projects. The interests of British contractors operating overseas may well be best served if they are in a position to take part in such a development. They have, after all, an enviable reputation abroad and have already worked with continental contractors on overseas projects. Certainly, if Britain does join the Common Market, our overseas contractors must readjust their thinking to the new situation and act quickly to catch up with any lead that the original member countries may have already established.



Main staircase with exposed face interiors in white concrete

# EXPOSED FACE CONCRETE FINISH TO HAMMERSMITH RESEARCH BUILDING



View of the building from above

THE new Wolfson Institute for Medical Research built for the London Post-Graduate Medical School at Hammersmith Hospital is an impressive example of exposed face concrete.

Recently completed by Holloway Bros., Ltd., the building is of an unusual shape and has exterior walls of white reinforced concrete, the concrete being just as it left the moulds with the imprint of the sawn wooden formwork standing out in relief.

wooden formwork standing out in relief. Three lecture theatres have been designed into the building to take the minimum of space, with access to them all at ground floor level. A large theatre above has seating for 490 and two smaller theatres directly beneath can seat 150 and 60. Walls are without windows and there is good sound insulation. Plenum heating and ventilation is installed.

and ventilation is installed.

Each theatre is fully equipped for projection and sound including apparatus to relay the sound of heartheats. Other accommodation is a large dining area, which can also be used for dances, a doctors' club, common rooms and a medical engineering department in the basement. A caretaker's flat is situated on the roof.

on the roof.

Structurally the institute has a reinforced concrete frame incorporating prestressed concrete floor and roof beams, with suspended concrete roofs and staircases. The lecture theatres are of box construction bearing on six main columns, with external walls 8in. thick to a maximum height of 58ft. These walls are in fact deep beams and the theatres had to be supported until the roof slab was actually cast.

The concrete used on the construction comprised a graded flintstone aggregate of \$\frac{1}{2}\$ in. to \$\frac{1}{2}\$ cin., Portland Capstone fines of \$\frac{1}{2}\$ in. to flour, and Snowcrete white cement. No sand was used in the mix, but it was found that the very fine Capstone acted as a plasticiser or cement additive, producing an easily workable mix.

In view of the concentration of steel reinforcement the concrete was made with a very high slump. However, considerable



General view of the exterior, showing exposed face finish

crushing strengths were obtained. A strength of 4,000lb, at 28 days was called for, but some as high as 6,000lb, at 28 days were attained.

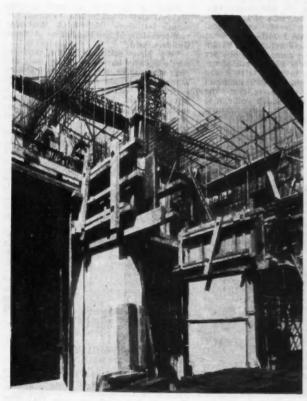
The internal walls are 4in. Thermalite blocks, allowing a 2in. cavity. They are panelled with Bartrev boarding to which are fixed triangular softwood fillets and Slottac boarding of varying width. This treatment provides very effective acoustics.

The institute is the first part of an extension scheme that will cost £750,000. It was designed by Lyons, Israel and

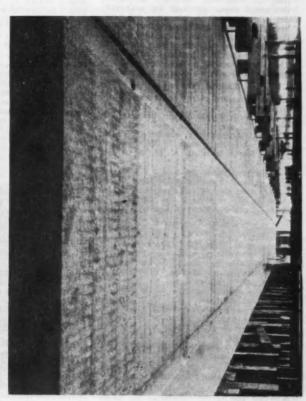
Ellis, 43 Portland Place, London, W.1.

The civil engineers were Felix J. Samuely and Partners, 231 Gower Street, London, N.W.1, and the quantity surveyors were Mercer and Miller, 10 Manchester Square, London, W.1.

Work started on the site in August, 1960. Possession was taken of the various sections of the building as they were erected, the first section being finished in January this year. The Prime Minister officially opened the complete building on May 3.



Putting finishing touches to main supporting columns



Close-up of finish to the exterior walls of the lecture theatres

# RAISING THE STATUS OF THE PROFESSIONAL ENGINEER

# Structurals President's Suggestion To The Civils

SPEAKING at the annual dinner of the Institution of Structural Engineers held at the Dorchester Hotel, London, last week, the President, LT.-COL. G. W. KIRKLAND said the status of the professional engineer in all fields of public life was nothing like as high as it should be. He believed the failure to be their own fault, partly through the scatter effect on the large number of bodies which represented them.

To rectify the position, Colonel Kirk-

land suggested that members of the char-

tered engineering institutions should describe themselves simply as Chartered gineers. Addition-ally, there should be an organisation to represent all chartered engi-neers to ensure their proper representation the councils of the world. This did not call for formation of yet another engineering body; the "mother" — the



LT.-COL. KIRKLAND

"mother" — the Institution of Civil Engineers — should encourage her varied offspring and admit their spokesmen to her Council on the basis of proportional representation.

# No "Take-over Bids"

It would, admitted Colonel Kirkland, re-It would, admitted Colonel Kirkland, require much patience to divert the "mother" Institution from "take-over bids" and the like, but there were at least 10,000 members of chartered engineering bodies, thousands more qualified by university degree and experience who were not members of any engineering society, and many thousands more again qualified by examinathousands more again qualified by examina-tion and experience who were members of the non-chartered engineering institutions. The overall total of professional engineers might well approach a quarter of a million.

# Largest Profession

The profession of the engineer was the largest in the country. The B.M.A. represented almost 80,000 doctors practising in practically every branch of medicine; chartered accountants numbered almost 43,000, while there were 25,000 members of the Royal Institute of British Architects.

These professions enjoyed a recognised These professions enjoyed a recognised place in society; steps must be taken to ensure that in this age of the scientist and technologist the professional engineer was likewise accorded his rightful place.

# Unique Institution

Earlier, Colonel Kirkland said the Earlier, Colonel Kirkland said the Institution of Structural Engineers were unique in that they were the sole professional body in the world representing engineers in the specialised field of structures. Their 9,000 members might not represent a high proportion in the whole field of professional engineers but their importance as specialists was self-evident.

"We are naturally jealous of our posi-tion and would resist any action which might detract from our prestige or any association or amalgamation which might lead to the loss of our identity," he declared.

# Structural Challenge

The President was replying to the toast of "The Institution" proposed by LORD JOHN HOPE, Minister of Works, who pointed out that quite a number of structural engineers were employed in his

department and he was very proud of the work they did. Structural engineering was a field in which they had occupied a lead-ing position. When Albert Bridge House was completed in Manchester it set a was completed in Manchester it set a standard for tall office buildings in the provincial cities. "We have now been offered a new problem which will put us on our mettle,"

he continued. "For technical reasons which I will not claim to understand, the Post-I will not claim to understand, the Post-master-General requires a tower over 500ft, high in Bloomsbury. What is more he wants to put a considerable weight of electronic equipment quite near the top of it. To anyone who cares deeply, as I do, for the character of London and of its various districts this is a challenge indeed. It offers an opportunity to show what careful and imaginative design can achieve, even in so difficult a problem as this. I do not know whether we shall be judged to have succeeded, I hope we shall, and I am sure that this challenge is worthy of our best efforts.

that this change is worth, sefforts.
"Our efforts will be judged by standards of criticism which, so far as high buildings are concerned, have risen appreciably in recent years. This rise in æsthetic standards is one to which your profession has made a notable contribution," said the Minister.

# Economy in Construction

Referring to economy in construction, Lord John Hope said very considerable economies had been achieved since the war to which his Department had made a contribution of which it need not be ashamed. They were continuing to study ashamed. They were continuing to study structural economy problems, particularly with relation to the usage of office build-

"Another means of course of achieving economy in construction is by the use of new materials or new forms of construc-tion," he continued. "I understand that tion," he continued. "I understand that increasing use is being made of the hyperbolic paraboloid for roof construction. That is not to say that I understand what a hyperbolic paraboloid actually is. I am That is not to say that I understand what a hyperbolic paraboloid actually is. I am told that it is not the name of an obscure disease of the ductless glands, but something I forgot about in a geometry lesson at school. I gather that it is the name of a gracious curve which relieves the rectangular monotony which otherwise threatens to beset modern architecture, rather as the presence of our ladies with us tonight relieves the rectangular monotony of this ridiculous form of evening dress that we men are obstinate enough ing dress that we men are obstinate enough to stick to in these otherwise enlightened

#### MANCHESTER BUILDING CENTRE VISIT

The Minister of Works, Lord John Hope, recently paid a surprise visit to the Man-chester Building Centre. He was shown around by Mr. Haydn Smith, the chairman of the Centre, and Mr. John P. Griffiths, the director.

The Minister toured the permanent exhibition which consists of over 200 exhibits showing the latest building materials and products and was given a first hand account of the wide range of activities of the Centre.

# £IM. WAREHOUSE AND STORAGE DEPOT

Mr. Ronald Lyon, of Ronald Lyon Estates Co., Ltd., has completed negotiations for a 13½-acre site alongside London Airport for the purchase price of £276,500. Situated in Faggs Road, Feltham, the site will be used for a £lm, warehouse and storage depot storage depot.

# FINAL STAGE OF £1M. DEVELOPMENT AT POOLE

WORK is in progress on a £523,000 project for the construction of a new four-storey warehouse and office building for the Laboratory Chemicals Division of The British Drug Houses Ltd., at Poole, Dorset.

Ltd., at Poole, Dorset.

The building, to be completed in a contract period of 14 months, is the third and final stage of a £1 million development programme extending over a site of some six acres. John Laing Construction, Ltd.

six acres. John Laing Construction, Ltd., who have also erected a number of buildings forming the second stage of the scheme, are the contractors.

The new block, 340ft, long and over 100ft, wide, will be the largest on the site, incorporating packaging, packed stock and departed, departments, together with the incorporating packaging, packed stock and despatch departments, together with the Division's home and export sales and administrative offices. Nearly three years have been spent in the detailed planning of design and equipment to ensure maximum efficiency in every warehousing operation. Space released on the present factory site by the transfer of warehouses and offices will be used for manufacture to meet the continually growing demand for the Division's products; for new development and biochemical laboratories, and for extensions to the analytical laboratory. Construction will be by the lift slab method on 40ft. high reinforced concrete columns and cladding will be in brickwork with continuous high-level windows for the warehouse section and deep windows for offices. Thermalite building blocks will be used for the third floor will be the

wall.

A feature of the third floor will be three open courts which, in addition to permitting improved natural lighting will serve as open promenades in good weather. Special air-conditioning equipment is to be installed in the main packaging area on the second floor.

The architect for the project is Sydney

Greenwood, A.R.I.B.A.

# INFLATION BOGY THREATENS **AGAIN**

Speaking

Speaking at the Eastern Counties regional annual conference in Great Yarmouth last week, Mr. W. A. Mackridge, vice-president of the Federation of Master Builders, said:

"We have suffered in the past—the whole country has—from rising costs, and after many trials, we thought we had done with it, and could see the way ahead to a period of steady prices for our work. But that old inflation bogy threatens again. What is worse, the Government does not appear to help in any practical way.

does not appear to nelp in any practical way.

"The deeper implications of the Budget—reflected in the threats of a tax on the numbers employed and the likelihood of ad hoc changes in purchase tax—are not encouraging. The costs of nearly every prime commodity, including fuel used in the manufacture of building materials, is again on the upward march, and there will be still more taxation levied on any profits the industry may indeed be fortunate enough to make.

"All this, of course, must tend to push

"All this, of course, must tend to push up prices for building work; and certain public authorities have already brought back a rise and fall clause to their condi-

tions of contract."

Mr. Mackridge also criticised local authority direct labour and called on the Government to "help us all by attacking the basic problem—the threat of rising costs of labour and materials."

# MASTER BUILDERS VISIT **GERMANY**

A delegation of some 60 members, mainly from the London Region, of the Federation of Master Builders flew to Germany last week on their 1961 West Berlin and Hamburg technical study tour. They are due to return today.

# LIFT SLAB CONSTRUCTION ON £550,000 BIRMINGHAM CAR PARK



The north west corner of the building with the lifts completed. Further slabs ready for lifting can be seen in the foreground

 $A^{\, LL}$  the reinforced concrete floors have been cast and 60 per cent. of the lifting has been carried out on the

the lifting has been carried out on the new multi-storey car park being built at Longbridge, Birmingham, by the lift slab method of construction. Completion is expected at the end of August. The speed and economies possible with this form of construction will result in the erection of covered accommodation for 3,300 cars at a cost of £165 per car space. The car park, claimed to be the largest of its kind in the world, is designed on the ramp principle. It will enable The Austin Motor Co., Ltd., to store the increased production from their new assembly building

which occupies space formerly used by vehicles awaiting despatch.

The lift slab method consists of casting reinforced concrete slabs forming the upper floors and roof of a structure around the columns at ground level, using a resinous columns at ground level, using a resinous separating medium between each slab and employing the ground floor as the initial soffit form. After the slabs have matured they are lifted by synchronised hydraulic jacks to their correct positions, and are then permanently connected to the columns.

Slabs are generally divided into some

Slabs are generally divided into several sections to provide convenient areas for placing concrete, and for lifting. Work can therefore be carried out continuously, i.e.,

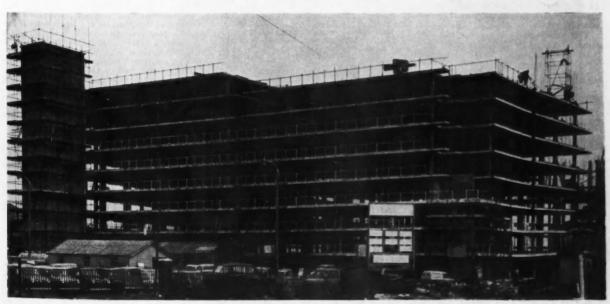
a cycle can be arranged so that carpenters. steelfixers and concretors work round from section to section. A gap is left between the various sections of the slabs which are

the various sections of the slabs which are afterwards joined together in situ.

At Longbridge there are nine floors, including the roof. For convenience of construction the plan area has been divided into 12 sections. The larger slabs weigh 350 tons each, and the constructional programme involves the lifting of these slabs in pairs. This lifting load is shared by 21 jacks each with a lifting capacity of 70 tons.

70 tons.

The building is 376ft, long and 204ft, wide. All parking floors are ramped, and (Concluded on next page)



View from the west, showing floor slabs in place on one-third of the building

# SUBSTANTIAL INCREASE IN ARCHITECTS' FEES FOR HOUSING

# Purpose to Encourage Better Design

THE specially reduced scales of fees for state-aided housing schemes and multi-storey flats, introduced by the R.I.B.A. in 1944 to aid the post-war housing effort, are to be withdrawn on June 1, 1961.

From that date the normal R.I.B.A. scale of fees will apply to all repetitive housing and multi-storey flats, although there will be a substantial reduction in respect of any repetitive elements in the design—as, for example, where a particular house or flat type is used more than once in a scheme, or has been previously used in another scheme for the same client.

The effect will be substantially to increase the fees paid to private architects by local authorities, new town corporations, and housing associations.

A statement issued this week says:
"The R.I.B.A. has been compelled to
make this change, because the existing cutrate fees are inadequate to sustain the cost of good architectural design. These fees, introduced in 1944 and only increased by 40 per cent. since then, take no account 40 per cent, since then, take no account of the vastly greater increase in the cost of running offices or of the cost of living. Since 1944 the need to increase housing densities (fitting more houses into each acre), to provide a garage for every dwelling and to separate vehicles from pedestrians have made housing layout and design infinitely more complex and difficult than it was when semi-detached houses than it was when semi-detached houses were strung along estate roads. The old scales, which applied to 'state-aided' scales, which applied to 'state-aided' dwellings, have been made out of date by changes in housing subsidies, for which many publicly provided houses and flats no longer qualify.

"Many architects, including many of the best housing designers, have lost money on housing schemes and have refused to do any more. Others have done the work at a loss out of public spirit. But the low rates do not permit architects to spend the necessary time on the complex problems of layout and design, and encourage the excessive repetition of standard types.

"The R.I.B.A. has in fact been attempt ing to raise housing fees by agreement with the Local Authorities Associations for many years. Negotiations finally broke down in 1959 over the local authorities' refusal to agree even to a modest increase. The scale was last revised in 1955."

The new arrangements do not affect either:

(a) The private client who has com-missioned a single house, for which the R.I.B.A. scale already prescribes the minimum fee;

AS announced some months ago, Mr. Henry Brooke, Minister of Housing

A Henry Brooke, Minister of Housing and Local Government, has been considering the suitability of an area around Dawley in Shropshire for the building of a new town under the New Towns Act, 1946, to house overspill from Birmingham and the Black Country.

Because of the many old mine workings in the Dawley area, he has now decided that a special investigation will have to be made of the possibilities of building a satisfactory town there, and of the likely extra cost due to the nature of the site.

In response to his request, the Birming-

In response to his request, the Birming-ham City Council have agreed that their city architect, Mr. A. G. Sheppard Fidler, M.A., F.R.I.B.A., A.M.T.P.I., may carry out

3 812 . "

MIDLANDS NEW TOWN

Government Investigate Possible Site

are involved.

(b) The speculative builder who is also the developer. Because in this case, there is no contract, the architect's fee cannot be charged on the contract fee cannot be charged on the contract price. An interpretation of the R.I.B.A. scale, by which the fee is charged on the selling price of the house, was introduced in 1959 and remains in force. The new arrangements in fact bring the fees for speculatively built and publicly provided housing more nearly into line. The new arrangements apply to all other clients for repetitive housing or flats, including private developers building by contract.

contract

The scales for state-aided housing adopted in 1955 began at £34 lls. a dwelling for the first four houses, and came down to £7 lls. a dwelling came down to £7 11s. a dwelling for each dwelling over 225. The fees for state-aided multi-storey flats began at 5 per cent. for contracts under £10,000, coming down to 2 per cent. for contracts over £250,000, with a reduction for repetition in a second contract.

The New Charges

The normal R.I.B.A. scale begins at 10 per cent. for new works costing less than £700, and comes down to 6 per cent, for contracts over £7,000. For nearly all repetitive housing, therefore, the fee will be 6 per cent, but this is subject to a reduction by prior argament.

tion, by prior agreement, by an amount not exceeding 3 per cent, of the cost of the repetitive elements in the scheme.

Detailed application of this principle is complicated, but the following examples show how the old and the new scales operate. show how operate:

operate:

Example 1
4 Houses (2 types)
Total cost of construction £6,000
Old fee: £137
New fee: R.I.B.A. scale fee at 7 per cent.
less reduction for repetition
£342

Example 2 50 Houses (5 types) Total cost of construction £75,000 Old fee: £1,367 New fee: R.I.B.A. scale fee at 6 per cent. £4,500 less reduction for repetition £1,755 £2.745

Example 3
48 Flats in 4 Blocks, 3 Identical Blocks
Total cost of construction £133,000
Old fee, at 34 per cent. £4,655
New fee: R.I.B.A. scale fee at 6 per cent. £7,980
less reduction for repetition £1,350

(Concluded from previous page) a double spiral system of floors enables upward and downward traffic to be comupward and downward traffic to be com-pletely segregated. Passenger lifts and staircases are provided at the four corners and, in addition to car access by the ramped floor, two car lifts will be installed principally to move cars above fourth floor

The total weight of all slabs to be lifted on the building is 32,250 tons, the height above ground level of the uppermost slab being 72ft.

The site area is two acres and the total

effective floor area available on completion will be 17 acres. During the casting period up to 500 cu. yd. of concrete were poured a day.

#### Concrete Columns

The Longbridge building differs from most previous buildings erected by this method in this country in that reinforced concrete and not steel columns have been used. For ease of handling and lifting these were cast on site in three sections.

Attachment of the slabs to the columns was through steel collars which were cast in the concrete. These also provided a means whereby the hydraulic jack was connected to the slab and acted as a guide as the slab slid up the column during lifting.

connected to the slab and acted as a guide as the slab slid up the column during lifting. When the slab had reached the required height a steel wedge was inserted between the column and the collar which were then welded together. For this purpose a fabricated steel instert was cast monolithically within the column.

The sequence of events was first to construct the foundations and cast the ground floor slab. On completion of this stage, the steel collars were threaded on to the columns and the columns erected and plumbed on the prepared foundations. The first floor collars were then lowered on to first floor collars were then lowered on to the ground floor slab and positioned there. Reinforcement for the first floor slab was positioned on the ground floor slab and the positioned on the ground floor slab and the concrete placed, screeded and trowelled to the required finish. As soon as this concrete had hardened sufficiently, it was sprayed again with the separating medium and as soon as this had hardened, the process of casting the first floor slab was repeated for the second floor and subsequent slabs.

As econ as the roof slab had reached its

repeated for the second floor and subsequent slabs.

As soon as the roof slab had reached its specified strength, lifting commenced. The piston of each jack was connected to two 28ft.-long by 1½in. diameter high tensile steel rods which were anchored at their lower extremity to the slabs by means of the steel collars. Extension rods were fitted to carry the slabs to the required height. Each jack has a patented locking device to prevent the slab falling should there be any failure in the hydraulic supply.

The hydraulic supply to each jack passed through a central control panel and the flow of oil to each jack could be regulated by valves on this panel. The height of lift at each column was also recorded at the control panel by means of an electric microswitch mounted on the jack and connected

switch mounted on the jack and connected to a Veeder Root counter mounted in the control panel. The operator was thus able to see the progress of lifting at each jack station and where differential lifting arose it could be corrected by adjusting the theattle values. throttle valves.

# Architects and Contractors

Architects and Contractors

The architects for the car park, which will cost about £550,000, are Harry W. Weedon and Partners, 45 Calthorpe Road, Birmingham, 15.

Construction is being carried out by British Lift Slab, Ltd., in conjunction with their parent company, Robert M. Douglas (Contractors), Ltd., 395 George Road, Birmingham, 23.

this investigation. In doing so Mr. Sheppard Fidler will be acting for the Minister, not for the Council. He will be provided with specialist assistance from the Ministry and elsewhere on the questions of subsidence and the reclamation of dereliction which

With reference to the report of a speech made by Mr. Donald Wade, Liberal M.P. for Huddersfield, appearing in our last issue, Mr. Wade was speaking at the dinner of the Building Surveyors Institute held at the Waldorf Hotel. It is regretted that this was omitted from the report.

# **BUILDING SURVEYORS INSTITUTE**

# £21 MILLON FIJI CONTRACT

Christiani-Nielsen and Gammon, a joint venture of Christiani and Nielsen, Copen-hagen, and Gammon (Malaya), 1959, Singapore, have been awarded a £2,250,000 extension to their existing harbour works contract in Fiji for the reconstruction of kings Wharf Company Kings Wharf, Suva.

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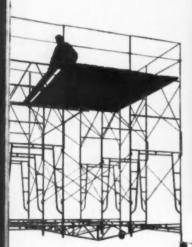
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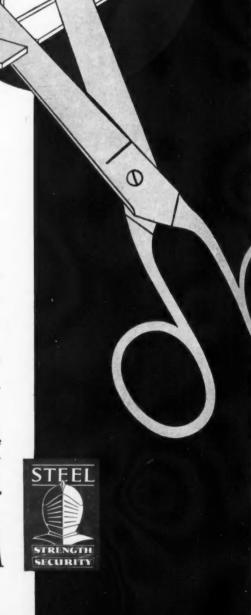
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B·C·S·A



# PROBLEM OF RECRUITMENT AND TRAINING OF WATER ENGINEERS

### "Thorough Investigation Urgently Needed"

"WATER undertakings, in common with other public services, face a serious situation due to shortage of staff", said Mr. M. T. B. Whitson, B.Sc., M.I.C.E., in his presidential address at the Institution of Water Engineers' conference, held in Buxton recently.

"The British Waterworks Association, in March, 1960, obtained information from 223 water undertakings in an effort to assess the magnitude of the problem", he stated. "The questionnaire on which the summary of replies was based included particulars of technical, administrative, and manual employees. Whilst appreciating the general problem, this Institution is more particularly interested in the difficulties encountered in the recruitment of engineering staff. In this category the number employed by the 223 authorities was 1,083, of which 632 were under 40 years of age, and 451 were above that age. The number of unfilled vacancies was 94.

#### Not Encouraging

"The facts which have emerged from this preliminary investigation are not encouraging and, I believe, would even be depressing if they were analysed to indicate the situation existing in various parts of the country.

"Personal experiences have a limited value in an investigation of this nature but, having had the opportunity to advertise for engineering assistants in the 'hungry thirties', and to receive inquiries from 20 promising young engineers, I am enabled to make a comparison with present-day abortive advertisements, This prompts me to ask the questions—What has happening?—and What of the future?

"What has happened, of course, is that we have passed from the financial stringency of the 1930s—when even to suggest a major constructional scheme was tantamount to a political offence—through the dark tunnel of war into an era of prosperity and intense activity which, no doubt, the historian will describe as the Second Industrial Revolution.

Second Industrial Revolution.

"We are, in fact, striving to remedy the damage done to our towns and their inhabitants by the rapid industrial expansion of the first revolution. Modern science has placed in the hands of the technologist the tools and materials to accomplish this task, and has created an unprecedented damand for highly trained men and women, which we have endeavoured to meet by overhauling our educational system. Universities and colleges are bursting at the seams, yet the demand for recruits continues to exceed the supply. A situation has thereby been created in which the emphasis of competition has been shifted from the applicant to the employer. Public authorities are now competing with industry for the necessary men and women, but industry, knowing its requirements and having the organisation to publicise them, is exerting the greater influence.

"Not only are we not getting a fair share of graduates, but we have lost many of the potential trainees who were recruited from schools but who now proceed to the university. Using personal experience again as an indicator, it was formerly an easy matter to select first-class pupils from school and to train them for professional qualifications. The present system has made a serious breach in this reservoir of recruits.

"What of the future? Even before we

hazard a guess a thorough investigation of the problem is urgently necessary. Among the questions which require answering are: (1) How many trainees are required to safeguard the future of the industry?; (2) how many are now being recruited from (a) universities, and (b) schools?; (3) what should each water authority be doing in order to make its fair contribution towards the solution of the problem?

"We appreciate the efforts now being made by employer associations to stimulate recruiting, and the training schemes now in operation or proposed are very commendable, but in each training scheme—usually in the last paragraph—lie the operative words 'The chief officer of the department in which a trainee is employed shall be responsible for his welfare, further education, and training'. To which we might add, that he must also take an active interest in the competitive trainee market, and be prepared to make the requirements of his profession known abroad.

"Under existing conditions of inadequate staff this is indeed a great responsibility, but it is one which was shouldered by our predecessors who, in the building of works of engineering, not only had the satisfaction of achievement, but realised also that these works were mere symbols of human effort, and saw to it that their successors were capable of emulating their high standards.

#### Learning and Thinking

"Following this attempt at an analysis of the reasons for what we hope is only a temporary pause in recruitment, and the necessity for a continued interest in training, may I be excused if I indulge in that useful, but often misunderstood function of the elderly—the interpretation of experience?

"The modern world of engineering with its increasing pace of development presents a challenge to the young engineer and, at the same time, lays him open to a serious handicap. There is so much to be learned that the time left to him for thought is almost negligible, and this is happening at a period in our history when original thought is more necessary than at any time in the past.

"I look at the present-day student with awe and the greatest of respect. He is called upon to learn about twice as much as the more leisurely student of 40 years ago. If we accept the fact that the personal coefficient of absorption cannot have altered much in that time, he is, however, bound to finish his studies in that supersaturated condition which is so harmful to the processes of thought. The years which follow are years of desaturation, in which he must make certain that he gives himself time to think.

"This period of adjustment is the vital and formative part of his engineering career and, in order to put the 'benefits of a good education' in their proper perspective, he would be well advised to keep Samuel Smile's 'Lives of the Engineers' by his bedside. This will at least bring home to him the fact that the evolution of engineering knowledge has been based upon a long and laborious conflict of small victories and great defeats. The men engaged in the battle came from all classes of society; some were self-educated, some had received the benefit of a good education, but all were original thinkers.

"If we accept the dictionary definition of 'original' as 'not derived, copied, imitated, or translated from anything else', it will be appreciated that original thought is a rare process. The early engineers

had the advantage of us in this respect. They were schooled to originality by lack of information and their inability to copy, imitate, or translate from previous experience.

"Today, the great flood of information tends to kill initiative, and it is extremely difficult—but fortunately not impossible—to think of anything which has not been done before. The challenge, however, remains, and the individual will adopt his own methods in meeting it.

"The placid acceptance of the work of our predecessors is a bar to all progress. The G.P. of water engineering, however, must of necessity base his decisions on what has been done before, and the very purpose of his training is to enable him to make the correct use of existing knowledge.

ledge.

"He can, nevertheless, make a special study of some aspect of his work in which he is particularly interested, and subject it to the rigours of thought, inquiry, and search. He will thereby develop his ability to think and, by becoming an expert in a limited field, he will be the better fitted to deal with experts, and to treat them with the caution and respect they deserve. In later years, when he gets bogged down in the slough of administration, he will have a rope with which to pull himself out—now and again—on to the solid ground of engineering, and so to recapture some of the enthusiasm of his youth.

#### Art of Research

"The two processes, thought and search, constitute the art of research, and it is convenient, though probably not quite correct from a scientific point of view, to define research in this manner in order to illustrate the parts played by the individual, the committee, and the research laboratory.

"The thinking process is peculiar to the individual. The searching can also be done by the individual, but is greatly accelerated by the committee and the laboratory.

"In the case of the research laboratory, the two processes are complementary, but the worker in the field is in many cases hampered by his isolation. His ideas and thoughts may be sound, but he does not have the opportunity to match these with his colleagues.

"The Institution's Research Groups can be of great assistance in this respect; their formation has been justified, and there is a continuing need for them."

### SWANSEA UNIVERSITY BUILDING PROGRAMME

Work on an extension to the existing library of the University College of Swansea and on a new Arts building—first stage of the Main Arts Block—is to begin next month.

The contract, valued at about £450,000, has been awarded to The Demolition and Construction Co., Ltd., and represents the next phase in the University's new building programme.

Architects for the scheme are Sir Percy Thomas and Son, 104 Walker Road, and the quantity surveyors are W. T. Hills and Company, 8 St. James Crescent. Consulting engineers for the mechanical services and electrical installation are A. F. Myers and Partners. Design of the reinforced concrete frame of the Arts Block is by W. S. Atkins and Partners.

### A LAWYER CONSIDERS . . .

### The Payroll Tax — Safety in Working

THE 1961 Finance Bill just published sets out in Section 26, under the side heading of "Surcharges on Employers", the heading of "Surcharges on Employers", the Chancellor of the Exchequer's proposals on what is more popularly called the payroll tax. The Bill, which of course may be heavily amended by the time it becomes an Act at the end of July, provides that if, between the date of the Bill becoming law and March 31, 1962, it "appears to the Treasury expedient so to do" the Treasury may by order direct that a surcharge on employers may come into effect freasury may by order direct that a sur-charge on employers may come into effect from the date of the order for a period ending on August 5, 1962, or such earlier date as may be prescribed. The surcharge is to be in respect of each person in respect is to be in respect of each person in respect of whom the employer is liable to pay a contribution for that week under the National Insurance Acts and would amount to not more than four shillings per person per contribution week. Power is given to provide in the order for different rates of surcharge for different persons.

of surcharge for different persons.

These surcharges if imposed are to be collected together with the National Insurance and Health Service contributions. By the Fifth Schedule to the Bill it is provided that these surcharges which an employer may become liable to pay in respect of a person for a contribution week plus the National Insurance and Health Service contributions already payable by the employer for that person in respect of that week are to be regarded as one combined contribution payable by the employer under the National Insurance Acts.

From the mixed reception given to this proposed tax one may perhaps doubt if

From the mixed reception given to this proposed tax one may perhaps doubt if it will ever be used. Nevertheless, contractors will appreciate that this is one more uncertainty which must affect their pricing. Of course, it would be possible to assume the maximum imposition of the tax and add the sum to the tender figure. This is no doubt impracticable since many contractors will not do this, so that those who do risk losing tenders to rivals who are willing to chance their arm on this point. Ruling out this comparatively simple method of treatment one may usefully consider the problem in relation firstly to contracts already let and secondly to those which are still at the tendering to those which are still at the tendering

#### **Existing Contracts**

Where the contract is on a firm-price basis it will usually be impossible to recover any imposition of this tax by order made after the Act comes into force. It should however be possible, on the lines suggested in an article in *The Contract Journal* for January 5, 1961, to argue that the tax must be taken into account when valuing variations and when estimating the extra cost to the contractor of complying with instructions. For the original work set out in the contract documents only an ex gratia claim would normally be possible. ex gratia claim possible.

In the case of building contracts under R.I.B.A. conditions which allow for the recovery of fluctuations it will be noted that the Bill's Fifth Schedule provides that this tax, if payable, is to be regarded as if it were part of the employer's contributions under the National Insurance Acts
If one looks at Clause 25A(1)(d) of the R.I.B.A. contract the contractor is entitled if the rates of contribution payable under if the rates of contribution payable under the National Insurance Acts are increased after the date of tender, to recover the net amount of such increase. It would seem possible therefore to argue that if the pro-visions of the Bill's Fifth Schedule are not altered by the time the Bill becomes law the payroll tax should be recoverable under the R.I.B.A. Contract's fluctuation clause.

Obviously the threat of this tax being imposed by Treasury order after the Bill comes into force by about the end of

July this year is a factor which tenderers on firm-price jobs must bear in mind because, as stated above, the additional cost of the tax, if imposed, would not normally be recoverable on such contracts. Of course this possibility may have the effect the Government apparently intend and cause contractors when tendering to a contract of the contract and cause contractors when tendering to prune their expected labour force for the job to the minimum. Nevertheless, contractors would be wise to seek clarification as to the intention of the building owner as to allowing any claim in respect of this tax if it were imposed after the date of tender. It might perhaps be suggested to him that a populational suggested to him that a provisional sum to cover the tax be inserted in the bills; or, if the contax be inserted in the bills; or, if the con-tractor is willing to run the risk of the tax in respect of the work originally speci-fied, to make clear in his tender that he would need to reconsider his rates for valuing variations, etc., if the tax were imposed—and he might even, if his esti-mating department can do so, set out the various percentage increases he would mating department can do so, set out the various percentage increases he would need to his bill rates to meet the possible imposition of this tax on labour for extra or varied work. The important point however on firm-price tenders is, before the contract is signed, to get clear, preferably in writing, one way or the other, whether, and if so to what extent, this tax would be recoverable by the contractor.

tractor.

On contracts to be let on a fluctuations basis contractors should clarify whether or not the fluctuation provisions of the contract conditions would allow the reor not the fluctuation provisions of the contract conditions would allow the recovery of this novel tax; it is unlikely that they will which makes it all the more desirable to get the point clear. Even on fluctuation contracts on R.I.B.A. conditions, and despite the suggestion set out above that it might be arguable that this tax was recoverable under Clause 25A, it would be advisable to get clear whether or not the contractor is to be entitled to recover the cost of this tax if imposed.

It should of course be remembered that if the tax is in force or is to come into

recover the cost of this tax if imposed. It should of course be remembered that if the tax is in force or is to come into force after the date of tender so that the contractor has or ought to have taken it into account in his tender and then the tax is removed or reduced during the contract the building owner may well try to seek a reduction in the price he has to pay. If the contract is firm-price then, like the contractor in opposite circumstances, he will almost certainly be unable to insist on any reduction by the contractor. On varied work however he might well argue that new, and reduced, rates were appropriate. If the contract is on a fluctuation basis then the points given above would apply but in reverse; and the suggestion that the question of whether or not this tax is within the fluctuation clause should be made clear at the time of contract, applies with equal force.

Safety in Working

#### Safety in Working

IN Connolly v McGee [(1961) 2 All E.R. In Connote v McGee [(1961) 2 All E.R. 111] an asbestos roofer sued his employer for breach of the duty they owed him under the Building Safety Regulations. C, the roofer, was fixing asbestos sheets to a one-storey building the framework of whose roof was of latticework girder construction with purlins 4ft. 6in. apart running along the length of the building and resting on girders. The sheets had to be laid on and fixed to the purlins. sheets had to be laid on and fixed to the purlins. The sheets were strong enough to let a man walk on them though from the nature of asbestos it was desirable to avoid putting too much weight on an unsupported sheet. In carrying out the fixing the work was done in rows starting from the bottom of the roof; each sheet was mitred at the corners and drilled before being carried to the roof. Youngman's staging, strips of wood joined by cross-battens, had been placed on the roof so that the sheeter's weight when carrying

the sheets up the roof was kept well distributed. Each sheet overlapped the corresponding sheet on its right and the one below. A man would insert a bolt from underneath through two holes and another would screw the nut down. The first man would have to be along the line of a purlin, his legs in a downwards position and the Youngman's staging laid lengthways along the roof as a support.

On the day of C's accident the sheets used were from a load which had been tested by the employers and from which several defective sheets had been removed. C put on a bolt and the other man screwed down the nut. C then took his left am from underneath the sheet and then, for some reason not explained, leant his weight on his right arm near the edge of the sheet

on his right arm near the edge of the sheet at a point beyond the double support of the overlap. The sheet cracked and C fell

at a point beyond the double support of the overlap. The sheet cracked and C fell and was injured.

Regulation 5 provides that "Suitable and sufficient scaffolds shall be provided for all work that cannot safely be done on or from the ground, etc." To succeed in proving a breach of duty by his employer under this Regulation C had firstly to show that his employer had not in fact provided scaffolds which the Regulations define as "any temporary structure on or from which persons perform work in connection with an operation to which these from which persons perform work in con-nection with an operation to which these regulations apply . . . "; then secondly he would have to show that, in the words of the Regulation, the work could not "safely be done" without the provision of suitable scaffolds, and the employer should therefore have provided them.

therefore have provided them.

On the first question the court felt that Youngman's staging was a scaffold as defined in the regulations when laid up the slope of the roof for the purpose of the workmen getting to their place of work; however, once the men had got to their work place, they no longer used the staging as a scaffold for doing the work; C relied on, and his employer expected C to rely on, the roof supported by purifiand not on the scaffold, the Youngman's and not on the scaffold, the Youngman's staging. C's employer had therefore not provided scaffolds and the second question, whether he ought to have done, therefore arose.

question, whether he ought to have done, therefore arose.

On this question the Court could not find any case in which the meaning of the words in Regulation 5 "cannot safely be done" had been defined. Now clearly it is difficult, when an accident has in fact occurred from one way of doing a job, to argue that that way is one under which work can safely be done; one can always be met by the reply—well in one case at least that way of working did result in an accident so it cannot be a safe way of working. The Court however drew a distinction between what is possible and what is in fact likely; the test it felt in deciding whether work "cannot safely be done" by any particular method is to ask whether or not from experience of doing the work by that method that experience has shown that the method is or is not likely to produce accidents. Applying this principle to the present case the Court said. "In a case such as this where the work is work carried our regularly by the whole trade the present case the Court said. "In a case such as this where the work is work carried out regularly by the whole trade in the same way that this work was being carried out, and the workman has failed to show any history of accidents in the trade. . . the workman fails to show that the work 'cannot safely be done' in the way in which it was being done at the time of the accident. The accident rate must be of importance, although it is by no means conclusive." C's claim against his employer therefore failed.

This case shows once again the tendency in recent decisions that wherever possible

in recent decisions that wherever possible the courts will try to interpret statutory duties placed on employers in a reasonable way and avoid the conclusion that an absolute obligation has been placed on

# SCIENCE MUSEUM GALLERY COMPLETED

## Arched Roof of Metal Construction



Exterior view, showing arched copper roof over the aeronautical gallery

A NEW gallery has just been com-pleted at the Science Museum, South Kensington, to house the South Kensington, to house the museum's aeronautical collection. The design is reminiscent of an aircraft hangar, with an arched roof of metal construction.

construction.

The gallery forms the top floor of a three-storey block now being built by the Ministry as an extension to the Science Museum. It is 225ft, long, 80ft, wide and 30ft, high to the centre of the roof.

Ten tubular steel arches carry the roof, each of them of 100ft, span in two prefabricated sections, These arches pass through the glass walls of the room and

are seated on rockers bearing on the outside walls of the building.

Embossed aluminium has been used for the inner lining of the roof because it is light and will need no painting. It also has good heat insulating properties. The outer covering of the roof is copper, with 3in. of cork insulation between this covering and the aluminium.

To take up any expansion or contraction that might occur, bellows joints of copper have been fitted at the places where the arches pass through the glass walls. These walls slope inwards about 2ft. from top to bottom.

to bottom.

The colour scheme of the new gallery is light blue for the tubular steel arches,

with white for the lattice work. End walls, where they adjoin the tea room, are painted purple. At the other end they

painted purple. At the other end they are grey-green.

The floor will be covered with linoleum—a broad 15ft. strip of a coppery-yellow colour alongside the glass walls on each side, with the rest of it charcoal colour to cut out reflections on glass showcases. Heating is by warm air from the museum's central boiler house, which is forced through vents in the roof. The air is extracted through grilles at each end

is extracted through grilles at each end of the gallery.

Many of the historic aircraft which form the basis of the museum's aeronautical (Concluded on next page)



The "hangar-like" gallery which has just been completed

## UTILISING SUBMARINE PIPELINE TECHNIQUES

#### FOR SEA OUTFALLS

#### Some Economic Considerations

"DUE to the fact that every job differs it is impossible to standardise prices by quoting rates per unit length of given diameter. However, it can be stated that in the majority of cases fully investigated the submarine pipeline has proved to be the most

economic solution particularly when compared with full treatment works."

This statement was made by Mr. W. G. G. Snook, Dipl.C.E., A.M.I.C.E., deputy general manager, Land and Marine Contractors, Ltd., during the course of a Paper presented at the recent conference of the Institution of Public Health Engineers in Blackpool

neers in Blackpool.

"If neighbouring councils with a pollu-In heighouring councils with a point tion problem arrange to have the hydro-graphic surveys carried out jointly, or at least at the same time, quite a considerable saving is achieved," he said. "Even more obvious of course is the saving if councils

act jointly in contributing to a single disposal scheme, or arrange to have separate schemes constructed during the same season.

#### New Materials

"Experiments are proceeding with new materials. As would be expected the most interesting of these new materials is the plastics range of pipes which are now being manufactured in quite large diameters. There are many problems to be solved before plastic pipes can be used on their own. These problems are not only connected with the actual laying operations but also with providing stability against transverse currents and possibility of movements of the sea bed either underagainst transverse currents and possibility of movements of the sea bed either undermining the pipe and submitting it to the force of the currents, or else a build-up of material over the pipe which could cause a flattening effect. However, these problems are being actively investigated. One of the most attractive solutions seems to be prestressed concrete pipe as an outer skin with a plastic pipe as a 'lining'. skin with a plastic pipe as a 'lining'.
Development of the utilisation of prestressed post-tensioned concrete pipes is
well advanced.

"For the smaller local authorities and industries where full treatment can be replaced by comminution and high velocity pumping through comparatively small diameter pipes, the submarine pipeline technique can, contrary to several recently published statements, show economies not only on capital outlay but on operational

only on capital dutialy but on operational costs.

"In coastal resorts heavy construction works being carried out during 'the season' can be catastrophic from a financial point of view and the submarine line technique has the advantage of not interfering with summer seasons by virtue of the fact that the pipelines can be built up during the winter and launched in the springtime before the busy season commences. To give an example on one recent project in South Wales, a submarine outfall comprising 1½ miles of 18in, diameter steel pipe was completely installed and operational within 11 weeks from the goahead to proceed. During this 11 weeks the pipes had to be located, purchased and delivered, wrapped on site before welding could take place, and the total time taken to get the 1½ miles length into the sea was only two days. only two days.

riaving been installed, the submarine pipeline requires practically no maintenance or operational expenditure, apart from, of course, power used and supervision in pumping or comminution. "Having been installed, the submarine from, of course, power used and supervision in pumping or comminution. Obviously if there is no pumping and discharge is by gravity then there is hardly any expenditure apart from occasional inspection of the cathodic protection system, where simply reading the ammeters will indicate whether the lining and coating is intest.

#### Construction Sites

"With regard to construction sites it is very seldom that there is no possibility of using the pulling technique. For instance, on one recent investigation where a full treatment works had been planned, the only construction site appeared to be some marsh land or playing fields divided from the sea by a promenade and two busy roads with very expensive residential properties on either side. However, it was still found to be a much more economic proposition to adopt the submarine pipeline technique by allowing for the purchase of several of the houses concerned at prices way and above market value, simply knocking down the front and back walls in one room on the ground floor and to close the roads (which it was determined were not too busy in winter) for 24 hours during the pulling operation. In this instance it may well mean a saving to the ratepayers of a capital expenditure of £200,000.

of £200,000.

"Towns which are split by rivers or estuaries and have been considering treatment on either side of the estuary or river mouth, or perhaps duplicate outfalls, can often benefit by utilising the submarine pipeline technique to span the river and collect the sewage on one side using a single outfall from the most economic Position. position.
"It is

"It is quite often still an economic proposition to run a shore line from the existing collecting points to the construction area, where it has been impossible to find a suitable construction area close to the town or the existing point of outfall." "Conversible expedience the construction of the construction area close to the town or the existing point of outfall.

to the town or the existing point of outfall.

"Generally speaking the cost involved in getting on to site the necessary equipment for land and marine works is common to practically any length of pipe within limits, of course, so that the extra cost in construction of two miles of pipeline as against one mile of pipeline would be mainly in regard to the extra materials and a certain amount of labour involved. In other words, the longer the pipeline, the greater the rate of decrease in the cost per unit length. length.

"It must be appreciated that this state-ment is generally accurate, but the rate of decrease is affected considerably by site conditions, particularly if it is only possible to build very short lengths of pipe on land, as this means a great increase in the number of tie-in joints which affect the time factor of the piling operations and the time factor of the piling operations and in consequence the risk factor with regard to storms, bad weather conditions in general, silting up over the pipe, etc., and as the basis of quotation is almost inevitably a 'lump sum' such eventualities must be foreseen and allowed for."

#### SCOTTISH CHARTERED SURVEYORS ELECT OFFICERS

Mr. David Wardhaugh, vice-chairman of the Royal Institute of Chartered Surveyors (Scottish branch) was elected chairman of the branch at their recent annual meeting. He is chairman of the Chartered Land Agents' Society (Scottish branch) and has hear factor to Aight catter size. 1951

Agents' Society (Scottish branch) and has been factor to Airlie estates since 1951.

The new senior vice-chairman is Mr. J. W. Gray, a partner in the firm of Baxter, Dunn and Gray, Glasgow, Other vice-chairmen are Mr. H. J. Crone, Glasgow, and Mr. G. M. Thomson, Dumfries. Hon. secretary is Mr. E. R. Webster, Glasgow.

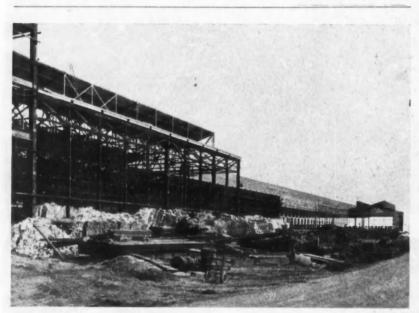
(Concluded from previous page)

collection will be suspended from the roof of the new gallery at different heights. When they are in place the Ministry of Works will build a meandering light steel walkway among them so that visitors will have a chance to inspect them at close constores.

warway almost them so that visitors ware quarters.

Other floors of the new building will house the Transport exhibits of the Science Museum, the Ships collection, and the exhibits devoted to clocks and astronomy. It is hoped that building work will be completed in the summer of this year.

The new block has been designed in the Chief Architect's Division of the Ministry of Works by Mr. W. Kendall, A.R.I.B.A. The foundations and frame of the building up to first floor level were carried out in 1950 by Higgs and Hill, Ltd., to provide quarters for the Science displays for the Festival of Britain. The work now in course of completion is being done by Y. J. Lovell, Ltd.



Car assembly building No. 2, which is now under construction at the Austin Motor Co. 18. Longbridge Works. Estimated to cost £31m., it has been designed by Harry W. Weedon and Partners, and is being erected by Wilson Lovatt and Sons, Ltd.

### RECONSTRUCTION OF THE ANGEL ROAD BRIDGE AT EDMONTON

From a Correspondent

THE new Angel Road Bridge at Edmonton, with dual 30ft, carriageways carried on nine piers over a 480ft. straight cantilevered bridge length and approached by gentle gradients and approach alignments of some 2,500ft. in length, represents a further major step towards the clearing of the numerous severe restrictions to traffic which exist on the North Circular, London's Trunk

on the North Circular, London's Trunk Radial route.

The end of the second stage of the construction of the new bridge by Leonard Fairclough (London), Ltd., was marked recently when the first of the new carriageways was brought into operation.

The existing single 24ft, carriageway reinforced concrete bridge was built. in 1908 and was based on the Considière system, using 17 spans to bridge 700ft, and having a total length of 1,300ft. Its approaches were laid out on small radius curves considered suitable at the time and in recent years was subject to a weight restriction. The bridge crosses eight sets of railway tracks and a small stream.

Design Considerations

#### Design Considerations

The main design considerations of the new bridge centred about obtaining a central span of 60ft. flanked by 52ft, spans, with further 52ft. and 40ft. spans flanking these in turn. In order to make the maximum use of precast concrete construction, the span units have all been designed to the span units have all been designed to a common cross-section, the difference in span length being taken up in part in the design of the cantilevered piers. The major spans are post tensioned so that a portal frame effect is achieved. Approaching from the east, the bridge thus consists of three 40ft. simply supported spans, followed by seven fully tensioned spans of 40ft. 52ft., 60ft., 52ft., 52ft. and 40ft. The length of the main 60ft. span was fixed by the position of the railway platforms below whilst the 52ft. spans were located by the presence of sidings.

spans were located sidings.

The approach curvatures on the east range from 750ft. to 1,108ft. mean radius, whilst on the west these are from 495ft. mean radius to 4,500ft. The central reservation, which is 4ft. width over most of the bridge, increases to 14ft. on the eastern approaches.

Site clearance was started in February.

eastern approaches.

Site clearance was started in February, 1960, involving the demolition of 13 houses, a cafe, a small engineering works and partial demolition and rebuilding of a large warehouse. The existing approaches to the present bridge were partially demolished and new approaches constructed such that one 30ft. carriageway of the new bridge could be opened for traffic at the earliest date. In the setting out all major work was carried out by night time observation, due to the density of traffic. of traffic.

The site is overlain on average by 3ft. of clay, followed by a 12in, gravel laver, which in turn rests on 6ft. of peat, before a gravel base is reached. The foundations a gravel base is reached. The foundations for the abutments, piers and retaining walls were taken down an average of 10ft. to the base gravel and the excavations for a subway at the eastern approaches were carried down 17ft. As the water table is some 8ft. to 9ft. below surface, only the subway excavation required to be pumped, the inflow here being handled by a Sykes UVS6 Univac working mostly "on snore" to deal with the peat and gravel slurry.

The nine pier units, each of five legs, are founded on strip foundations, these being 6ft, wide, 90ft, in length and 4ft, deep, the excavations for these in the limited working space being made with a

10RB fitted with a backacter. Each pier unit consists of five legs, these legs being some 19ft. high from foundation level. The piers are surmounted by a cantilevered crosshead, the function of which is to support 59 longitudinal precast prestressed members per span. The construction of the reinforcement and shuttering of the cantilever heads utilised 14in, square bar frames, fabricated in the form of a truss. To these bars at suitable points were welded frames, fabricated in the form of a truss. To these bars at suitable points were welded Kwikform fastners which provided the anchorages for the shuttering bolts. Welded steel channels were also used to give support to the frames between piers. Channels, or tubes are located in the pier heads for the passage of the prestressing cables and Plastiment was used to ensure the maximum workability of the concrete. The 59 precast beams which form each span are 15in, wide and 2ft, in depth and

The attention given in the design to achieving the maximum harmony with future surroundings, combined with economy in construction is reflected in the use of Griggan granite facing panels as permanent shuttering for the mass concrete retaining walls of the approach embankments. These harmonise particularly well with the redevelopment which is taking place in the area and the use of variegated panels breaks any monolithic effect to which such features tend to give rise.

rise.

The points at which the construction of embankment ends and bridging commences was, of course, determined by plotting graphs of the cost of each, the intersection of these governing the end of the embankment. The fill material for the embankment is compacted hoggin, this being spread with a Drott skid shovel and



Main spans of the bridge

weigh approximately 6½ tons. They are delivered to site by Cawood Wharton, Ltd., and are emplaced at the rate of one every six minutes with a 15-ton Smith's M.E. mobile crane, over 70 per cent. of the beams being emplaced with this unit.

For some sections, however, the contractors employ their 65-ton Moto-Lorain, which is normally fitted with a 50ft. jib but which is used here with a 120ft. jib. This mobile crane is currently the largest of its kind used in the U.K., and was specifically imported from the U.S.A. by Leonard Fairclough to expedite precast concrete construction.

precast concrete construction.

The beams for each of the tensioned spans are stressed with 12/276 Freysinnet cable to 54 tons, each cable passed through one beam and the two adjacent pier heads. The main span is stressed with 16/276 cable on the Magnol-Blaton system. Transverse stressing using 12/200 cables at 5ft. centres is also employed to tie the beams

together.

The decking consists of a 10in, thickness of reinforced concrete on the approaches, on the bridge deck this being a levelling up between the rise and fall of the 6in, camber of the beams. This is surmounted by a 2½in, base course of asphalt, followed by a 1¼in, wearing course. compacted with a 6/10 smooth-tyred roller on hire from Moores Plant, compaction being to within 95 per cent. of its maxi-mum dry density and approaching 100 per cent. behind the abutments.

per cent. behind the abutments.

The realignment of the services over the bridge involves a 12in, water main, an 18in. gas main, G.P.O. and street lighting cables and several high voltage cables. The provision of a pedestrian subway is also being made at the Eastern end, this being of 7ft. 6in, finished square section of reinforced concrete construction with asphalt tanking and finished internally with 4½in, green glazed brick and granolithic floors.

#### Provision of Mobile Plant

The contractors' provision of mobile plant of ample capacity to handle the largest precast units involved has been a particular feature of this contract, this also being demonstrated in the provision made for compressed air supplies—with the contract spread over a line of some 3,000ft. and with substantial demands arising at several points, this has been met by using a Foden mounted Consolidated Pneumatic type 600-RO-2 rotary "Power (Concluded on page 720)

(Concluded on page 720)

### PAINTING CONTRACTORS' YEAR OF "STEADY ADVANCEMENT"

### Further Expansion Indicated

"THE total volume of work executed which in some areas was much in excess of 1959—and the consequent increased activity of members, fully justify the year being described as one of steady advancement," state the of steady advancement," state the Council of the Federation of Painting Contractors in their annual report for the year ended December 31, 1960.

However, the report points out that this continued development applied entirely to continued development applied entirely to the section of the trade with which the Federation is concerned. The smaller master painters and decorators did not generally participate in the additional work handled during the year.

Discussing prospects in the field of industrial and commercial painting the Discussing prospects in the field of industrial and commercial painting the Council say that the indications for the coming year, and also for 1962, point to a further and possibly considerable expansion. They express the view, however, that the time has come for painting contractors generally to adjust some of their business habits and reduce to their own advantage the number of their occasional "gambles."

"gambles."

"Collectively, it is not within the Council's capacity to calculate the monetary compensation benefit that has accrued to contractors by reason of the additional work executed by them over the year in question," the report continues. "At the same time, the highly competitive character of the trade has again been most apparent and has no doubt proved an influential factor in the businesses of many members in determining whether the year's extended operations have resulted in a reasonably satisfactory profit margin or not. or not.

"Unfortunately, painting contractors often tender for work with the knowledge that a number of unfederated firms, who owe allegiance to no one and thus cannot be called to book for any doubtful practices, will possibly put in a 'cut price' for the job. This feature has long hampered, and often distressed, the trade, and, in the Council again emphasising that mem-bership of the Federation has always been synonymous with 'a good job at a fair price', they remain of firm conviction that the most formidable deterrent existing today to the creation of a satisfactory trading position is the continued incidence of uneconomic tendering by the misguided of uneconomic tendering by the misguided

"Members are therefore urged to give careful thought to this basic considera-tion when tendering during the coming tion when tendering during the coming busy months, at the same time bearing in mind the large volume of work facing the painting trade for at least the next two years. In the Council's view, it is little short of foolhardy to undertake any painting work unless a reasonable return is assured."

In discussing this situation, the Council considered the practicability of drawing up a schedule of prices for the varying classes of work and conditions exclusive to the trade but found that such a schedule, covering the many differing jobs entailed, could not readily be compiled. The answer, in the Council's view, lies in the general overhaul of members' cost-ting departments and the establishment of

ing departments and the establishment of the closest possible liaison between such departments and the estimating staff, coupled with a firm resolve to quote for work only at prices giving an adequate

"In many instances, this has already been adopted by members," the Council state. "It has, however, recently been reported that, in certain large towns, the number of tenders forthcoming has been insufficient for the client to place the work at what he considers to be a satisfactory price to himself. This is all to the good, inasmuch as it indicates that, if the volume of work to be handled by the trade in the next two years is in excess of that envisaged,

the situation should develop so as to enable the painting contractor to be far more selective in the jobs for which he competes and particularly in his selection of the main contractors to whom he quotes

Air Ministry Work

"As is well known, almost all maintenance painting contracts issued by the Air Ministry are now on a three-year term basis," continues the report. "This form of tendering naturally again gave rise to a number of minor difficulties which were, during the year, satisfactorily settled in consultation between the Federation's representatives and officials of the Ministry.

"An issue of considerable importance."

"An issue of considerable importance will, however, arise before the year is out to those contractors holding current contracts by reason of the considerable increases in labour costs. The contracts, being on a firm-price basis, will not permit for the increases heing recovered and the of such increases being recovered and the Ministry have categorically informed the Federation that they do not propose to amend the conditions to provide for it. It is anticipated therefore that many contractors will request to be released from their obligations in accordance with the provisions of the documents covering such contracts.

"In this regard, the Council consider it is important that the contractors concerned should keep well in mind that it will still be necessary for them to carry out work for which orders have been issued prior to the notice of termination being given. the notice of termination being given. Should such notice be deferred until the new labour rates become effective, it may well follow that contractors may have to carry out three or four months' work at the increased rates without being in a position to recover the additional cost involved."

#### **Power Stations**

The report also discloses that early in February 1961, a deputation from the Committee further conferred with Sir Christopher Hinton, chairman of the Central Electricity Generating Board, as a result of which the industry's representatives. result of which the industry's representa-tives were successful in persuading the Board to revert to the conventional method of issuing invitations to tender for the paint and painting work involved directly to painting contractors.

### "JUNGLE WARFARE" THREATENS INDUSTRY, SAYS FEDERATION PRESIDENT

SPEAKING at the annual general meeting of the Federation of Painting Contractors in London last Monday. the newly-elected president, Mr. G. Greenhalgh, A.M.I.C.E., A.M.I.Struct.E., said that unless recruitment was given the serious attention it deserved, the "jungle warfare" adopted by some contractors in offering plus rates, expenses and other extra payments in order to attract labour, would increase until the

industry was reduced to chaos.
"We must take advantage of the present "We must take advantage of the present bulge in teenage population and train as many youths as possible now or the opportunity may be lost," he stated. "We ought perhaps to look again at the suggestion made 10 years ago by one of my predecessors for a shortened term of apprenticeship for plain painters, because unless we can build up recruitment we shall regret it in the future. regret it in the future

#### Interim Payments

After discussing the importance of acci-

After discussing the importance of accident prevention, the president then turned to the balance between min'ny received and money spent in doing work. "There are two aspects here that I wish to mention," he said. "Firstly, there is the adequacy of interim payments and prompt settlement of accounts. A great deal of our work is done as sub-contractors and payments for this work are received from the main contractor after he has received them from the client.

"In these days of specialisation the main contractor is becoming more of a co-ordinator. It is rare for a main contractor to execute more than 20 per cent. of a building contract, 80 per cent. being carried out by sub-contractors and specialists.

"It therefore often happens that the trades for which the main contractor is responsible have been completed and paid for before some of the sub-contractors have even started. Under these circumstances—human nature being what it is—one can understand a main contractor having little interest in devoting time to finalising a contract where the balances outstanding are entirely owing to suboutstanding are entirely owing to subcontractors.

"I do no wish to imply that all, or even the majority of main contractors, have this fault but where it exists the sub-contractor is in the difficult position of having no agreed figures on which to make a claim for payment and no right of approach to the client or his Q.S. to try to reach agree-

"Some years ago the Federation Council put forward to the Joint Tribunal on the Standard Form of Building Contract a suggestion which it was felt would assist sub-contractors who found themselves unsatisfied in respect of interim or final payments. The suggestion was that a clause should be inserted in the contract giving the sub-contractor the right to know what percentage of the original contract value of his trade had been certified and paid to the main contractor.—I am sure you will all agree that this, if agreed, will prove invaluable to painting contractors

will all agree that this, it agreed, will prove invaluable to painting contractors.

"The second point of balance between money received and money spent lies in our own hands. It concerns the price quoted for work compared with the specification of the work required to be done. "Several instances have been reported recently of prices quoted for contracts which bear no resemblance to the work specified even after allowing for the cheapest known paint with the highest possible number of yards per gallon applied by labour giving the most optimistic output in vards per hour. The annual report has dealt with this unhappy position. It is not suggested that the firms making such low quotations are Federation Members but when faced with such competition there is a temptation for even our members to cut prices.

"It is not, of course, our job to teach members bow to run their businesses and it

"It is not, of course, our job to teach members how to run their businesses and it is appreciated that there are times when a keen price is an economic one according to circumstances, but we do like to feel that the prices quoted by members of this Federation are directly related to the work specified. specified.

#### Pay-Roll Tax

"Finally I want to make one brief comment about the Chancellor's proposal regarding a pay-roll tax." said Mr. Greenhalgh. "One of the reasons put forward for this proposal is that it is designed to prevent employers from 'hoarding' labour. If this is the purpose surely the tay is most prevent employers from 'noarding labour. If this is the purpose surely the tax is most inadequate, inequitable and doomed to failure. If an employer is retaining labour which is not being fully used at a rate of say £15 a week what difference will a tax of 4s. per week make?"

## INTENSIVE PLANNING OF £14M. GLASGOW HOUSING CONTRACT

IN the Hutchesontown/Gorbals rede-I velopment area of Glasgow last week Holland and Hannen & Cubitt (Scotland) Ltd., commenced work on a Hm. housing scheme involving the conten 195ft. residential

Planning for the programme was so intensive that it took four months, and seven alternative schemes were devised. They covered the use of various types of plant and different approaches to the job. Typical of the detailed studies was the estimate that the four tower cranes employed would have to make 60,000 lifts

during the run of the contract.

Following a special visit to France to study the use of tower cranes on major building projects. Cubitts decided to import one of the largest ever used in Britain.

Britain.

Able to lift loads of 4½ tons up to a height of 210ft, at a radius of 100ft., the crane's main job will be to hoist the 800 wall panels, each 21ft, by 9ft., into position on the building straight from waiting lorries. Weighing four tons each, the concrete panels will be factory precast.

By September all four tower cranes will be at work on the site handling concrete, formwork and reinforcements. Over 600 precast flights of stairs will be placed in the buildings, which will also be served

by eight electric 12-passenger lifts. During construction, access to the buildings for workmen and small materials will be by two passenger/goods hoists,

A close watch on the overall construc-tion programme will be maintained at daily site conferences and at weekly target-setting and progress review meetings. They will be supported by further meetings between senior officials at fortnightly and monthly intervals.

#### Interconnected Blocks

The 10 tower blocks will be inter-connected at alternate floor levels in two groups, one of three towers and the other of seven. Work will proceed simul-taneously on both groups of maisonnettes, but Cubitts expect to complete the three-tower group some time before final com-pletion of the whole project in the summer of 1963.

Standing on concrete stilts, the first floor of the maisonnettes will be 15ft. 6in. above the ground. The main supporting columns of the blocks will be of heavy splayed buttress type from the ground to eighth floor, then proceeding vertically to the roof.

For decorative effect the panels will have finishes of exposed Walley's blue flint and Sievo mosaics. They will be delivered to the site from Edinburgh in

accordance with a rigid agreed timetable.
The 400 maisonnettes will be of eight different types catering for three, four or five people and will include special single apartments for old people on the lower floors and for young people on the top

The family type apartments will have pram storage at their own level. All bathrooms will be naturally lit and ventilated to the gardens, Each maisonnette will have a private garden balcony measuring 20ft. by 10ft. and for these, 200 precast garden balcony panels will be placed in position.

Total floor area of the residential redevelopment is over half-a-million sq. ft. The maisonnettes themselves will cover The maisonnettes themselves will cover 336,000 sq. ft. and the garden balconies 169,000 sq. ft. Fioors will contain electric coils for heating and there will be no fire-places. Refuse disposal will be by chutes.

The maisonnettes have been designed by Sir Basil Spence, R.A.R.D.I., P.P.R.I.B.A.

#### Development Area

Hutchesontown/Gorbals Comprehensive Development Area is one of 29 such areas throughout the City which the Corporation of Glasgow propose to tackle in the next 20 years. This first scheme of urban renewal coving 110 acres has, as its primary aim, the rehousing of as many people as possible at an average net density of 150 rooms per acre, whilst making adequate provision for schools and other community facilities. It is anticipated that about 10,000 of the existing 20,000 people can be rehoused in the 62 acres to be devoted to residential use.

Sir Basil envisaged the multi-storey housing as one great block forming the visual and social core to the whole of the Gorbals. Though split into two groups the towers will have the visual appearance of one large block.

Consulting engineer Ove Arup has worked in close co-operation with the architect to evolve the in-situ reinforced architect to evolve the in-situ reinforced concrete cross-wall structure. The splayed concrete legs of each tower will transfer the central cross-wall loadings to the ground, while a simple support will carry the end cross-wall. With this method the first floor slab can be simply spanned between central and end cross-wall, and be of normal economic thickness. This would not have been possible had more conventional pilotis and cantilevered slabs been adopted.

Glasgow city architect and director of

Glasgow city architect and director of housing is Mr. A. G. Jury, C.B.E., F.R.I.B.A., F.R.I.A.S.



A model of the proposed development

### MORE GRANTS NEEDED FOR ROAD REALIGNMENT

M.R. HENRY BOWDLER, who took over the post of Kent County Surveyor in late 1959, has presented to the County Council his report for the two years ending March 31, 1959 and

In it he says that the main trend during these years has been a growing realisation by the Government and the people that road building, from unclassified roads to motorways, must be expanded into a full programme in the shortest possible time. The county Surveyors' Society have been giving this advice and fighting a continuous battle against apathy and lack of money for very many years.

Mr. Bowdler commends the County's Roads Committee for constantly supporting that opinion and being prepared at all times to recommend the Council to match all Government grants with the appropriate In it he says that the main trend during

all Government grants with the appropriate

contribution from the rates. But, he states, the level of grants from the Ministry falls pitifully below the level required, particularly in relation to grants for improved realignment.

He continues: "Major improvement

He continues: "Major improvement grants need to be increased and I am encouraged by the Minister's recent announcement that more money will be made available for urban improvements and a three-year programme of priorities for improvement works on classified roads. "The total expenditure for which the

"The total expenditure for which the Roads Committee was responsible during the two years under review was 1958-59, £3,204,869; 1959-60, £4,265,477.

"With the many large schemes to be engineered, supervised and constructed it is to be anticipated that an annual expenditure of £54 million will have to be maintained over a planned period. At the moment we are thinking in terms of a

progressive, three-, five- or ten-year plan with an emphasis on main communications which will be fitted into planned development for the central areas of the borough and urban districts in the county."

#### PUBLIC LIGHTING ENGINEERS' ANNUAL CONFERENCE

The annual conference of the Association of Public Lighting Engineers will be held in Scarborough from October 3—6. After an official opening, Mr. E. C. Lennox, M.I.E.E., F.I.E.S., will be installed as president.

Among the Papers to be presented at the conference session will be: "New Lampsor Old", by H. Hewitt; "Some Social and Economic Aspects for Street Lighting", by E. B. Sawyer; "Colour is No Bar", by J. T. Grundy and G. K. Lambert; "Local Authorities and Street Lighting—Overall Considerations", by D. Clark.

#### CONTRACTORS WANT MORE PUBLIC WORKS

"THE Government's acceleration of the road programme is welcome as a step in the right direction but there is much more to be done in the public development of the country," states Mr. A. J. Hill, B.Sc., M.I.C.E., chairman of the Federation of Civil Engineering Contractors, in an introduction to the annual report of the Federation just

Water supply, sewerage and flood prevention schemes are long overdue, he points out, and urges the Government and public authorities to recognise and act upon the necessity of keeping such works abreast of other forms of capital invest-

"If, as I earnestly hope, these greater opportunities are provided, our members will be able to demonstrate their proven resilience and capacity to fulfil them," he says. "While new challenges will call for says. "While new challenges will call for increased mechanisation and ever-improving methods, there will remain in our affairs the element of human endeavour, combining all that is best in leadership, ability, and courage, which attracts good men and rewards them with a great sense of achievement."

#### Direct Labour Attacked

Speaking at a Press conference to introduce the annual report, Mr. Hill said the industry was worried by the growing use of direct labour by local authorities. Describing this as a "form of nationalisation by the back door" he said it was having a serious effect particularly on the smaller civil engineering contractors in smaller civil engineering contractors in several parts of the country.

#### Reluctance to Tender

Questioned about the alleged reluctance Questioned about the alleged reluctance of contractors to tender for major road works, Mr. Hill said there had been instances of 30 contractors or more tendering for a single contract, many of them offering unrealistic prices. The result was a lack of confidence in the market and some contractors were understandably unwilling to tender. Useful discussions had been held with the Minister of Transport and he thought the problem was now being and he thought the problem was now being

#### MAJOR CHEMICAL PLANTS FOR MILFORD HAVEN

Work will shortly commence on the ruction of a new £4m. ammonia in Milford Haven, for a joint comconstruction pany formed by Esso Petroleum Co., Ltd., and Fisons, Ltd. The plant is to be built on a five-acre site adjacent to the Esso Refinery, and will produce 150,000 tons of ammonia a year.

The ammonia will be used in the manu-

acture of nitrogen products for the ertiliser industry by another wholly owned fertiliser industry by another wholly owned Fisons' plant, which is to be built on a separate 40-acre site nearby. Both plants will be connected by a pipeline, and are expected to be in commision by the spring of 1964.

The Contract Journal understands that the contracts for this work will be finalised in the near future.

#### (Concluded from page 717)

(Concluded from page 717)

Vane" compressor which has enabled an air supply of 600 c.f.m. to be available at any point along the contract with the minimum of delay. When necessary, this supply has been augmented by a Land-Rover mounted C.P.120-RO-2 unit.

The scheme is being carried out by the Ministry of Transport. The consulting engineer is John Mason, A.M.I.C.E., M.I.Struct.E., and the contractors are Leonard Fairclough (London), Ltd. The resident engineer for the consulting engineers is W. Cleghorn, the site agent for the contractors being Mr. Charlesworth.

### £3M. ESSEX REGIONAL SEWERAGE - SCHEME

DAGENHAM B.C. have been recommended to approve in principle a scheme for extensions and improvements to the Riverside Sewage Disposal Works to the Riverside Sewage Disposal Works to deal with waste from the areas of Dagenham, Brentwood, Romford and Hornchurch, etc., the £3,045,000 cost of which is expected to be borne proportionately by local authorities concerned.

The scheme will be carried out in two stages, the first of which, over five years, comprises the improvements and exten-

comprises the improvements and exten-sions necessary to meet the needs of the Dagenham drainage area, at an estimated cost of £2,281,000; the second stage, to cost £764,000, will be a two-phase programme for extension of Riverside Works and for dealing with the flow from Bretons when those works are finally

Dagenham B.C. have also been recommended to have detailed design work implemented as soon as possible, and to obtain specialised equipment by selective tendering. Tenders for the civil engineer-ing contracts will be invited in the usual

manner.

John Taylor and Sons, Artillery House,
Artillery Row, London, S.W.1, are the
consulting engineers.

#### LONDON C.M.P.E. Re-election of Officers

At the annual general meeting of the London branch of the Contractors' Mechanical Plant Engineers held last Thursday at the Hendon Way Hotel, Hendon, the officers and committee were re-elected for a further unanimously

rm of office.
The Chairman, Mr. A. G. Harris, re-The Chairman, Mr. A. G. Harris, reported that the membership figure for the branch was now 245. There were now 13 branches of the association and total membership was approximately 1,200.

#### First National Dinner

First National Dinner

Mr. C. Hilditch, honorary social secretary, reported that the first national dinner was to be held at the Coventry Street Corner House, London, on June 16, and it was hoped that the many members visiting the International Construction Equipment Exhibition at Crystal Palace from various parts of the country would find it possible to attend. Tickets, price two guineas, were now available from branch secretaries. In the case of London, applications should be sent to Mr. C. Hilditch, at 100 Cherrydown Avenue, Chingford, London, E.4.

The officers re-elected were: Chairman—A. G. Harris; honorary secretary—G. T. Walshe; honorary social secretary—

Walshe; honorary social secretary— C. Hilditch; honorary treasurer—J. E. Nicholson, auditors—H. A. Miller, A.A.C.A. and M.G. Wesson.

#### £450,000 CRAWLEY ENTERTAIN-MENT CENTRE PLANNED

The Contract Journal understands that tenders are to be invited from selected contractors in September for the erection

tenders are to be invited from selected contractors in September for the erection of a £450,000 entertainment centre at Crawley New Town.

Promoted by Mr. Nicholas Van Slochem, chairman of Van-Taylor Productions, the centre will be divided into two main blocks linked by a bridge at first and second floor

Inked by a bridge at first and second floor levels over a service road.

Architect for the scheme is Robert S. Grinling, 2 Halkin Street, London, S.W.1; structural engineers—C. J. Pell and Partners, 4 Manchester Square, W.1; services consultants—Ewbank and Partners, 10 Grosvenor Place, S.W.1; quantity surveyor—C. F. Ainsley, 2 Bedford Square, W.C.1.

## COSTAIN TO BUILD PLYMOUTH LAW COURTS

Richard Costain (Construction), Ltd., have been awarded a £290,000 contract to build the new Law Courts in the Plymouth City Centre.

### Late Construction News

STOKE DEPARTMENT STORE.—A contract worth £1,355,000 has been placed with Taylor Woodrow Construction, Ltd., for the erection of a department store between the erection of a department store between Lamb Street and Fountain Street, Hanley, Stoke-on-Trent, for Lewis's, Ltd. The development will ultimately include shops and an office block. Demolition has started on the site and building will start on June 1. The architects for the scheme are Sir Percy Thomas and Son, Ireland's Mansion, High Street, Shrewsbury, in association with Wood, Goldstraw and Yorath, 36 Cheapside, Hanley. Consultanticulate: William Jones, structural, Dale Street, Liverpool; B. H. Lambert, mechanical, Lewis's, Ltd.

BOURNEMOUTH FLATS.—Patcham Develbournemouth Flats.—Patcham Developments, Ltd., have negotiated a £120,237 contract with James Drewitt and Son, Ltd., Ringwood Road, West Howe, Bournemouth, for the erection of 40 flats and 21 Bournemouth. The architects are Gotch and Partners, 8 City Road, Finsbury Square, London, E.C.1.

BIRMINGHAM CONTRACTS. — Among contracts awarded during April by Birmingham City Council were the following: BIRMINGHAM CONTRACTS. ham City Council were the following: Alterations and extensions to Oldknow Secondary School—Smith Bros (Construc-tion), Ltd., Stratford Road, Birmingham, 11, £114,800; 36 dwellings and 22 garages at Washwood Heath—C. Bryant and Son, Ltd., 65 Whitmore Road, Birmingham, 10, £101,410.

BINGHAM SEWERAGE SCHEME.—Bingham (Notts.) R.D.C. have provisionally accepted the tender of Adam Eastwood and Sons, Ltd., Mansfield, Notts., at £188,524, for constructing the Radcliffe-on-Trent sewerage and sewage disposal scheme. About 2,200yd. of stoneware sewers and a sewage disposal works are included in the contract. A. H. S. Waters and Partners, 25 Temple Row, Birmingham, 2, are the consulting engineers

£675,000 FACTORY CONTRACT.—A. Monk and Co., Ltd., Padgate, Warrington, have been awarded a £675,000 contract to erect a five-storey factory extension to the a five-storey factory extension to the existing premises at Ordsall Lane, Salford, of Colgate, Palmolive, Ltd. The building will have a concrete-cased steel frame and a floor area of about 190,000 sq. ft. Plans are by Harry S. Fairhurst and Son, 55 Brown Street, Manchester, 2, and the quantity surveyors are Brown and Spencer, 26 Cross Street, Manchester 2.

94 FLATS AT BATH. — Site preparation ork has begun at Snow Hill, Bath, where 94 flats and maisonnettes are to be built for the City Council by A. Wills and Sons, for the City Council by A. Wills and Sons, Ltd., 15 Argyle Street, Bath. The contract price was £227.417. Consultants include: Snailum and LeFevre, architects, 18 Brock Street, Bath; W. E. Underwood and Son, quantity surveyors, 21 Gay Street, Bath; and Oscar Faber and Partners, consulting engineers, Torrington House, Holywell Hill St. Albans Herts Hill, St. Albans, Herts.

STRATFORD PUMPING STATION.—Subject to Ministry approval, Stratford-upon-4von B.C. are to accept the tender of M. J. Gleeson (Contractors), Ltd., North Cheam, Surrey, at £127,670, for construction of the main pumping station and rising main for a sewerage and sewage disposal scheme.

STAFFS. ROAD CONTRACT.—Percy Bilton, Ltd., Stone, Staffs., are about to start work on the construction of dual carriageways on a section of the Winchester-Preston trunk road A.34 from M.P. "Stone 2½" to Strongford Bridge for Staffs, C.C. Work includes diversions of River Trent and construction of three R.C. bridges.

TENDRING SEWERAGE WORKS.— The £386,873 tender of T. C. Stewart (Contractors), Ltd., Bury St. Edmunds, has been accepted by Tendring R.D.C. for construction of the western area sewerage

### COMPREHENSIVE REDEVELOPMENT OF BLACKBURN CENTRAL AREA

### Combined Scheme by Corporation and Laing Group

BLACKBURN Corporation have announced that in association with Laing Development Co., Ltd., they are to undertake a scheme for the comprehensive redevelopment of the central area of the town.

Over recent months a master plan has been prepared by the two bodies providing not only for the redevelopment of the town not only for the redevelopment of the town centre, but a long-term programme for the entire central area—150 acres bounded by the outer ring road. This ring road will, in the future, be the route for through traffic and it is therefore the natural perimeter of this central area.

In the zoning of the 150 acres, a new market site covers a large portion of the eastern sector and this will be linked with the town centre development. Below this is the coach station and an area zoned for is the coach station and an area zoned by industry, at present covered by the Star Brewery. Further south is another industrial area and this is screened from the bus station by a perimeter row of shops. On the northern side of the cathedral grounds are bank premises and to the west of the station is a further industrial area, which

will be largely occupied by warehouses and light industry.

High density housing is proposed to the west of the town centre and this will feed the centre. High blocks of flats are envisaged, grouped around green areas. On the extreme western boundary of the area is the proposed educational zone which will serve both the central residential development and the corporation's housing scheme west of Montague Street.

The Blakey Moor area in the northwestern sector provides a civic centre where the existing police courts and public halls and buildings will lie close to new office blocks, swimming baths, library and

office blocks, swimming baths, library and civic theatre, and on the north-west side further residential provision is made with a

small office area.

The whole plan allows for central residential development to take place on two sides of the town centre and keeps the industrial uses near to the railway.

#### Town Centre

In the layout of the commercial and civic centre it is proposed to isolate completely the entire shopping centre from vehicular traffic and a secondary ring road is planned in the line of Northgate, Church Street, Ainsworth Street and Exchange Street. There will be an area within these roads of

There will be an area within these roads of some 14 acres which will form the main part of the town centre.

The main shopping accommodation, which comprises both small and large shop units and a department store, is on one level which has been decided by the town hall entrance and the existing shops on the west side of king william street. His most of the control of the street the street of the street will be street. hall entrance and the existing shops on the west side of King William Street. Ultimately it is proposed that King William Street should be closed to vehicular traffic and turned into a pedestrian way, allowing the area between it and Northgate to form a large portion of the shopping centre.

Shops at the lower end of Church Street will be retained, but higher up, the buildings on the north side will be affected by road widening proposals. This scheme

road widening proposals. This scheme provides for new shops to follow the frontage line of the new road and at one point to be set back forming an open space opposite the cathedral. Also at this point will be the entrance to a new hotel, built above the shops.

above the shops.

The entire first floor of the area will be used for car parking, with a provision for 1,000 cars. Access to this car park will be by means of a single ramp situated in Exchange Street at the rear of the town hall and a number of pedestrian access points will be strategically placed within the centre. Access to the buildings on the upper floors will also be given from the car park. Accommodation to be provided includes: A multi-purpose hall; cinema; new offices and reception rooms for the corporation; multi-storey offices; library extension; civic theatre; and hotel.

First Stage

#### First Stage

The first stage of this redevelopment programme will be made possible by the removal of the market to the new site. The

programme will be made possible by the removal of the market to the new site. The existing Market Square and market hall will then provide the space for the construction of: 34 shops; supermarket; department store; corporation offices and reception rooms; restaurant; offices; car park.

The construction of this phase I development will follow the design of the larger scheme and basement servicing facilities will be provided with goods access from Victoria Street. The ramp to the car parking area will be situated at the rear of the town hall and will be large enough to cater for the larger demand of the final scheme. King William Street will remain and shops on the west side will be unaffected by the first phase. New frontages will be created on the east side and this will form the principal entrance to the new centre.



Model showing proposed town centre

### CRAFT FORCE AND EMPLOYMENT OF APPRENTICES

THE preliminary results of a census inquiry carried out by the Ministry of Works in September, 1960, into the employment of craftsmen and apprentices in the construction industries were announced last November.

More detailed results are now available which results are now available.

which may be summarised as follows:

The number of craftsmen employed by contractors increased in 1960 by 11,000 compared with 1959. The proportion of skilled men in the total labour force fell marsinally

skilled men in the total labour lock marginally.

The largest increase in a single craft was among carpenters, where the number of men employed increased by 4,000: increases in other crafts were smaller and were widely spread.

The total number of apprentices em-

ployed remained virtually unchanged, and so did the number of fully trained crafts-men for each apprentice employed.

men for each apprentice employed.

In relation to the number of craftsmen employed the proportion of apprentices in the small firms continued to be much higher than in the large firms although the total number of apprentices employed by the small firms fell in 1960 compared with the previous year.

with the previous year.

The number of carpenter apprentices (and boys on probation for carpenter apprentices) increased by 600 last year compared with 1959; there was little change in the number of boys apprenticed to most other caffs. to most other crafts.

The total number of firms employing apprentices fell in 1960. The decrease continued to be among the small firms.

#### **BRIDGE DESIGN LECTURES**

A course of lectures on "Modern Bridges, Construction and Design" is to be held this year at the Portsmouth College of Technology by the Department of Mechanical and Civil Engineering and

of Mechanical and Civil Engineering and Naval Architecture.

The lectures will be given every Tuesday from September 12 to November 28. Application to attend the course, which is at postgraduate level, should be made to the Registrar, College of Technology, Park Road, Portsmouth. The fee for the course

is 30s.

The speakers will include: Prof. P. B.
Morice, D.Sc., A.M.I.C.E., professor of
civil engineering, Southampton University;
E. W. Gifford, B.Sc., M.I.C.E.,
M.I.Struct.E.; R. M. Davis, Aluminium
Development Association; Mr. Foulkes,
M.A., Military Experimental Establishment; G. B. Godfrey, A.M.I.C.E.,
A.M.I.Struct.E.; F. G. Ward, British Constructional Steelwork Association.

### Men and Movements

THE managing director and deputy chairman of John Laing and Son, Ltd., Mr. J. M. Laing, has been appointed a member of the Economic Planning Board in the place of Sir Graham Cunningham, who has resigned from the board. Sir Graham was a member since the board's formation in 1947.

The general manager of the Plywood Manufacturers Association of British Columbia, Mr. John B. Armstrong, arrived in London recently for a 19-day visit. He is here for routine discussions with the second se

in London recently for a 19 - day visit. He is here for routine discussions with members of the Association staff. During his visit he will travel to different parts of the country to survey a proposed expansion of the Association's promotional and technical advisory services. Prior to his arrival in England, Mr. Armstrong spent two weeks



J. B. ARMSTRONG

on the Continent, where new market prospects for Douglas fir plywood are being actively explored.

British Insulated Callender's Cables, Ltd., have announced that Mr. J. W. Hinkley has been appointed manager of London branch. Mr. Hinkley, who has already taken up his new duties, also controls the B.I.C.C. depots at Chessington, Surrey; and Hayes, Middlesex. Formerly sales manager (winding wires) he succeeds Mr. R. E. Prickett, who has relinquished the London branch managership because of ill-health. Mr. Prickett will take up special duties under the London regional manager.

Mr. W. Murray Taylor, M.B.E., has recently relinquished his position as salvage director of Metal Industries (Salvage), Ltd. He has been with the Metal Industries group since 1930, when he joined Cox and Danks, Ltd., as an engineering apprentice. In addition to salvage, his interests have embraced a wide range of marine and underwater projects, including the securing for his company of the contract for positioning the intake structure for the Hinkley Point nuclear power station.

Mr. F. E. Collis has been appointed production director (designate) of the Perkins Group at Peterborough, and will

rerkins Group at take up his duties on June 1. Mr. Collis joins Perkins from the Plessey Company, where he was chief production executive. The Group has set up a public relations department to co-ordinate its world-wide public relations activities. Mr. J. O. H. Bowman, for some years head of the Austin Motor Co., Ltd's., press and public relations department, has here



F. E. COLLIS

tions department, has been appointed general public relations manager, with specific overseas responsibilities. Mr. Peter Hooper, press relations officer of the Group for the past seven years, has been promoted group press relations manager and also appointed U.K. public relations manager.

Newly appointed as an executive director of Sheffield Wire Rope Co., Ltd., is Mr. F. R. Swinden, works manager.

Mr. S. W. Martin is relinquishing his position as managing director of The Staveley Iron and Chemical Co., Ltd., but continues as chairman. He will be succeeded as managing director by Mr. N. C. Macdiarmid, a director of Stewarts and Lloyds, Ltd., who joined the Staveley board last September. Mr. W. N. Menzies-Wilson has been appointed deputy managing director.

The secretary of the Engineers' Guild, Ltd., Mr. J. G. Orr, returned on May 1 from a month's tour of Nigeria, Kenya, Uganda and Tanganyika, during which he met heads of government departments, with whom he discussed the current problems concerning the professional engineer in these territories.

After more than 30 years' service, the managing director of George Wimpey and Co., Ltd., Mr. R. U. Law, is to retire. Mr. Law has been a director of the company since 1938, and became managing director in 1945.

Mr. D. T. Hill, A.M.I.Mech.E., A.M.Inst. Fuel., has joined Causeway Reinforcement, Ltd., as sales manager. Prior to his appointment, Mr. Hill was London manager of the oil burning division of Hanworthy Engineering, Ltd., Poole.

The British Uralite group of companies have announced the appointment of a public relations officer. She is Mrs. Vivian Kershaw, formerly P.R.O. for Keir and Cawder, Ltd., and Securicor, Ltd.

Mr. Norman
Britnell has
recently been appointed advertising manager of
Copperad, Ltd. Mr.
Britnell moved to
Copperad from the
Blackwood Hodge
group of companies, where for
six years he was
group advertising
manager. Prior to
this he was advertising manager
for J. Arthur Rank
Overseas Film Distributors.



N. BRITNELL

Mr. M. F. G. Gibbs has been elected president of the Chartered Auctioneers' and Estate Agents' Institute for the year 1961-62.

H. Leverton and Co., Ltd., have announced the appointment of Mr. C. A. Durden as technical sales engineer for their new Caterpillar engine sales division. Mr. Durden was previously employed by General Motors and Cummins Engine, Co., Ltd., as a technical sales engineer.

Mr. J. J. McCormick and Mr. F. W. Westcombe, joint sales managers, and Mr. Ian A. F. Craig, overseas manager, have been appointed local directors of The British Wagon Co., Ltd.

The Gold Medal of the Institution of Mining and Metallurgy for 1960 has been awarded to Lord Baillieu, K.B.E., C.M.G., O.B.E., president of Dunlop, for his distinguished services to the Commonwealth mining and metallurgical industries,"

Copperad, Ltd., have announced that Mr, G. A. Manwood has resigned from the board of their associate company, Manwood Miller Fans and Filters, Ltd., in order to devote more time to his other commitments. He will, however, continue to be available to the company in a consultative capacity.

The assistant London manager with Small and Parkes, Ltd., Mr. George Colson, has been appointed Conservative Leader on Middlesex County Council. He was Chief Whip for four years.

Val de Travers Asphalte, Ltd., have announced the resignation from the board of Mr. A. A. Chant for health reasons. Mr. T. J. Harrison, Mr. A. G. P. Lincoln and Mr. A. J. B. Thornton have been elected to the board.

Mr. A. H. Collinson, formerly Ferodo manager, replacement sales department, Chapel-en-le-Frith, becomes the company's district manager in Leeds, following the retirement of Mr. F. Booth from the position. In his turn. Mr. K. Ravenhill has now assumed Mr. Collinson's former post.

Mr. J. E. Guest, M.I.Struct.E., has been appointed chief engineer of the reinforced concrete design division of Richard Hill, Ltd., a member of the Firth Cleveland Group. Mr. Guest joins Richard Hill from Matthews and Mumby, Ltd., where he was deputy chief engineer.

Mr. R. T. Miller has been appointed managing director and Mr. A. George has been appointed assistant managing director, of Fletcher Miller, Ltd., a member of the Castrol group of companies.

Mr. George E. Millar has been appointed general manager of the International Division of Fairbanks Morse and Co. Since last January, Mr. Millar, who has been with Fairbanks Morse for nearly 15 years, has been manager of export sales.

Mr. F. Murphy has recently joined Metal and Pipeline Endurance, Ltd., as a senior cathodic protection engineer. His principal activities will be in connection with the various pipeline cathodic protection projects being carried out by M.A.P.E.I. Prior to joining this company Mr. Murphy was technical director of Metal Economics (Seaguard), Ltd., and was also at one time corrosion engineer for Shell in Venezuela.

#### MUNICIPAL

A party of 19 town planning officials are making a 17-day study tour of American east coast cities, under the leadership of Mr. Wyndham Thomas, director of the Town and Country Planning Association Among the members are Mr. D. W. Riley, county planning officer in Staffordshire, and Mr. W. L. Walde, county planning officer for Cambridgeshire.

Mr. J. A. Gilchrist, engineer and surveyor to Leek (Staffs) U.D.C., is retiring

Richmond (Yorks) B.C. have appointed Mr. Alan B. Aird borough surveyor and water engineer. Mr. Aird is at present engineer and surveyor to Ross-on-Wye (Heres) U.D.C., and he will be succeeding Mr. Arthur Anderson, who is taking up an appointment as surveyor to Barnard Castle (Yorks) R.D.C.

Mr. A. V. Walker, director of housing at Woolwich, will retire next week after #9 years' service with the Council.

Three members of the L.C.C's. architect's department, Mr. John Earl, Mr. Norman Harrison and Mr. Vernon Hughe, and the Council's senior historical research assistant, Mrs. Marie Draper, returned recently from Italy after a fortnight's U.N.E.S.C.O. study tour of Rome and Florence. They met their opposite number engaged on the conservation and preservation of old buildings and studied the methods, techniques and background of this work in Italy.

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#### Trade and Company News

### CATERPILLAR DEALER'S NEW HEADQUARTERS AT CANNOCK, STAFFS.

THE new headquarters of Bowmaker I (Plant), Ltd., at Cannock, Staffs., are now in operation and last week saw the official opening of the premises by Sir Arthur Morse, chairman, Bowmaker, Ltd.

Ltd.

The block of buildings, on a 13½-acre site in Watling Street, comprises four separate units which are all interconnected. They are the general administrative offices, service department, parts department and canteen. These are grouped around the main entrance hall from whence access is obtained to each of the three main work areas and the welfare unit.

welfare unit.

The governing idea of the plan has been to facilitate service to the customer, whether he be a van driver picking up a spare part or an executive calling on the managing director. Everyone enters through the main doors into the glass fronted and spacious entrance hall. Facing the main entrance doors and on the left of the hall is the parts counter and on the right is the reception and inquiry desk.

#### Parts Departmen:

The parts department occupies 21,000 sq. ft. of floor area. The roof is of monitor construction with a clear height of 17ft. which allows for the maximum storage of spare parts dependent on the operating height of a stacker truck. The roof is carried on steel stanchions arranged on a grid of 35ft. by 35ft. which is related to the spacing of the standard storage racks.

#### **Administrative Offices**

Administrative Offices

In the general administrative offices, everyone, including the managing director and the typists, are in one large open office 7,200 sq. ft. in area. It is a room 120ft. long with a clear span of 60ft. The only people in separate offices surrounded by glazed screens are the cashier and the telephonists. Noise problems have been overcome by fitting a pile carpet over the whole of the office floor and by using a sound absorbent ceiling. The ceiling of perforated metal sheets backed by glass silk quilts also carries the hot water coils for heating the offices thus avoiding the obstructions caused by floor-mounted radiators. A grid of ducts under the floor carries telephone and power cables and these can be tapped to suit any rearrangement of furniture. As a precautionary measure against uneven wear on the carpet it has been made up of interchangeable square units.

changeable square units.

Callers may be interviewed in the entrance hall or in special conference rooms at first floor level. A glass enclosed

staircase tower leads from the entrance hall to the upper floor where a suite of conference rooms overlooks Watling Street.

#### Service Department

Service Department

The workshop is 275ft. long and 120ft. wide comprising 33,000 sq. ft. of uninterrupted floor space. It has been arranged with its length running approximately north and south parallel to Watling Street and is covered by a Silberkuhl roof. This roof is of German design and built under licence in this country. It consists

the side walls are also glazed. These help to give a sense of airy spaciousness to the workshop.

workshop.

There are 12 doorways, each 15ft. wide and 15ft. high on both sides of the service department with 8ft. wide panels of brickwork in between. Each door opens upwards and is so counter-balanced by a torsion spring that one man can open and close each of them. The use of these doors allows tractors or earthmoving machines to be brought into any work bay from outside. Four overhead travelling cranes each capable of lifting 5 tons may be used to move them or their component cranes each capable of lifting 5 tons may be used to move them or their component parts to any part of the shop. The cranes which are slung from the roof may be used separately or in conjunction with one another thus giving a total possible lift of 20 tons.

The floor has been specially hardened to withstand the wear of the crawler tractors and again a series of underfloor ducts allows for electric, compressed air and



Interior view of workshop

of a series of lattice-work steel arches spanning the full width of the shop and carrying shells of reinforced concrete which in turn span between the top boom of one arch and the bottom boom of the adjoining arch. The result is a curved and saw-toothed roof carried on steel stanchions which in this instance are set out to a grid 23ft. by 120ft. Large sheets of glass fill the spaces in the lattice of the arches, thus allowing natural lighting of daylight intensity to be obtained throughout the shop. In addition the north wall is entirely of glass and the large triangular spaces between the edges of the roof and

water services to be readily available practically anywhere in the shop. Offices and testing rooms are arranged on a raised platform at one end of the shop.

Additional covered floor space amounting to 11,000 sq. ft. is provided on either side of the service department workshop by two cantilevered canopies each 275ft. long and 20ft, wide. These allow for the display of new equipment or the storage of used equipment.

Outside the service department and at the rear is the wash and degrease bay where all tractors due for overhaul or "(Concluded on next page)



Service department, showing the Silberkuhl roof

#### Trade and Company News

### ARCHED ROOF BUILDING JOINS THE S. & F. RANGE

### Available in Various Spans

THE extension of their S. & F. range of standard steel framed buildings to include a new structure known as the Arched Roof Building, has been announced by Sanders & Forster Ltd., Barking, Essex.

The building, available in spans of 50ft., 60ft., 70ft., 80ft., 90ft., 100ft., 120ft., 150ft., 180ft. and 210ft. with eaves heights of 11ft. 14ft., 17ft., 20ft., 22ft. 6in., 25ft. and 30ft., has the main frame spaced at

ensure maximum economy as the span

welding has been widely adopted in the fabrication of the rolled steel joist struc-tural members as this reduces the number of site connections to facilitate rapid and easy erection and the four segment roof frame has only five bolted site connections and the six segment frame only seven site connections.

Roof lighting is normally provided by continuous strips of patent glazing or

#### HIGH FREQUENCY IGNITION SYSTEM

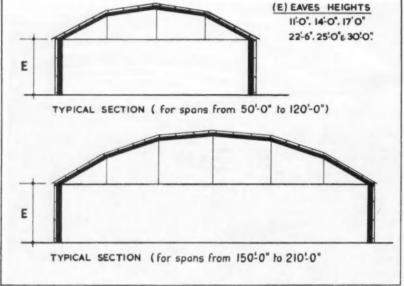
A N ignition system claimed to reduce the familiar causes of two-stroke engine failure, such as starting difficulties due to erratic fuel/oil ratio, is to be marketed by Wipac Group Sales, Ltd., Buckingham. The system, known as the Magister, employs a high-frequency condenser discharge extraction with a high rate of spark principle with a high rate of spark.

The problem of ignition failure caused by excess oil or dirt on the contact breaker is also said to be overcome by the mechanical advantage of employing the closing of the contact points to produce the spark.

spark.

Basically, the system varies from the conventional method of magneto ignition by the existing H.T. ignition coil being replaced by a feed coil. A.C. current, induced from this in the same manner as usual systems, is then converted to D.C. through a small rectifier which, in turn, charges a condenser. The charge is retained by the condenser until the contact breaker closes. At this point the store current is discharged through the ignition coil, which again uses primary and secondary windings. again uses primary and secondary windings, producing a high voltage which is taken to the sparking plug by H.T. lead.

With the conventional magneto, the breaking of the contact points to the magnetic break is of utmost importance. With the Magister discharge system, however, this timing is not so critical, and any discrepancies at this point have little or no effect on the ignition output. This is due to the fact that the condenser holds its charge from the feed coil till the contact breaker closes. While a recommended contact clearance is given, variations from this do not affect the magneto output.



"S and F" arched roof building

20ft, intervals for the home and export market and buildings can be supplied in any multiple of length. In Canada, to any multiple of length. In Canada, to accommodate the snow loading, the roof frames centres are reduced.

The roof frame for this new series takes the form of a continuous segmental arch with a tie at eaves level. In buildings from 50ft. to 100ft. span, a four segment frame has been adopted whilst for the wider spans, ranging from 150ft. to 210ft., a six segment roof frame is substituted to

translucent roof lights can be substituted.

Whilst the roof and wall cladding of the building may be of corrugated asbestos sheeting or of any of the conventional covering materials, the steel frame can be combined with traditional building materials where architectural elevations are preferred.

Steel-framed sliding doors, steel sashes, ventilators and any standard accessories can be supplied to requirements.

#### SMOKELESS INCINERATOR

Boston Marine and General Engineering Co., Ltd., Wolverhampton, have placed on the market a new smokeless incinerator—the Hoskinson model C100. It is said to destroy completely smokelessly all types of wet waste. wet waste.

A heavy duty fire door, 15in. x 29in., is fitted and a gas burner located in the bottom of the incinerator ignites and maintains the burning of the wet refuse. The unit can be fully loaded and requires no attention until it is recharged. Smoke is eliminated by the employment of a specially designed gas burner.

A flashing danger lamp with a transitor-ised circuit is being marketed by William R. Selwood, Ltd., Chandler's Ford, Southampton. The power source is two 6-volt lantern dry batteries and the lamp has a two-way 7in. lens, giving a flash every second. Once switched on, it requires special key to switch it off and it can be locked on to a bracket to prevent removal. The cost is £7 each.

TRANSISTORISED DANGER LAMP

#### TRADE NEWS IN BRIEF

New literature describing the principal equipments in their range of tractor shovels is now available from Bray Construction Equipment, Ltd., Faggs Road, Feltham, Middlesex.

Bartrev Board Co., Ltd., announce the pointment of Nixon Knowles and Co., Ltd., usen Road, Nottingham, as main distriutors for the counties of Nottinghamshire and Derbyshire

Derbyshire.

Drix Products, Ltd., is the new name of Stack Protection, Ltd., Silver Hill, Winchester. The change is the sequel to the development of new applications of Drix polythene from agriculture to other industries, including building and public works.

The Le Tourneau-Westinghouse Co., Peoria, Illinois, have produced a new full colour sound motion picture entitled "Dial It." This explains the function of Preco Dial-A-Slope, the automatic blade control attachment for motor graders.

Hawley Plant, Ltd., Hawley Road, Wilming-ton, Dartford, Kent, have been appointed Kent sales agents for Causeway safety trestles, manufactured by Causeway Reinforcement, Ltd., Five Ash Works, Northfleet.

G. and R. (Boards and Plastics), Ltd., The Scottish Board Centre, Linlithgow, have been appointed official Swedish Perstorp distributors

appointed official Swedish Perstorp distributors for Scotland.

Details of new equipment for two-line centralised lubrication systems suitable for oil or grease are contained in a booklet just issued by the Engineering Division of Castrol Industrial, Ltd., Castrol House, Marylebone Road, London, N.W.I.

Paramount Asphalte, Ltd., Kennington, London, S.E.II, have licensed W. D. Henderson and Sons, Ltd., Belfast, to be sole selling agents for Parovents ventilators in Northern Ireland.

Ireland.

United Merchants, Ltd., 60 Kingly Street,
London, W.I., have been appointed sole distributors in the United Kingdom for Amianco
cold caulking compound.

A new illustrated price list describing denlish density, routhbane, rainwater goods and

A new illustrated price list describing their high density polythene rainwater goods and tanks is available from The LaBrecque Engineering Co., Ltd., Gaywood House, Gayfere Street, London, S.W.I.

W. J. Furse and Co., Ltd., Traffic Street, Nottingham, have published a brochure illustrating many of the larger contracts on which they have been engaged.

(Concluded from previous page)

repair are stripped of mud and grease by

repair are stripped of mud and grease by high-pressure water jets.

The architect for the building was Alan Young of Dudley, the structural engineers Septimus Willis and Associates of Birmingham and the quantity surveyors Bond. Foster and Partners, Birmingham. The contractors were T.G. Construction Co., Ltd., of Wolverhampton.

#### **Future Expansion**

Increasing production at Caterpillar's Glasgow factory coupled with the demand for more machines as the country's road programme gets into swing rendered Bowmaker's facilities as Caterpillar dealers indeserts at Willeabell and so the move inadequate at Willenhall and so the move to Cannock. Now new works are also in course of erection at Exeter and Cardiff.

#### Trade and Company News

### YALE INTRODUCE NEW TROJAN 204 TRACTOR SHOVEL

### Lifting Capacity of 12,000lb.

PRODUCTION of the new Trojan 204 Tractor shovel has been announced by Yale and Towne Manufacturing Company, Willenhall, Staffs. A 2 cu. yd., four-wheel drive machine, it is with modifications a re-designation of the 154 model which was introduced early

last year.

The 204 has a lifting capacity of 12,000lb. and is fitted with the Leyland UE350 engine, Allison torquatic transmission and planetary drive action axles. Developed from the 154, it has an additional 1,000lb. counterweight added, thus improving the stability and waight flonal 1,000% counterweight added, that further improving the stability and weight distribution between axles. Coupled with this increased counterweight the machine is being fitted with larger size dump cylinders in order to give greater breakout

force.

The improvements of the 204 over the 154 model and the re-designation have been done to bring the British-built Yale Trojan in line with the recently revised model designations of the American range of Trojan tractor shovels.

#### Increasing Output

Following demonstrations of the company's machines, including the new 204 model, Mr. John O. Sewell, managing director, said that in the past three years the output of the materials handling equipment industry had doubled, and he pre-dicted that with the creation of regional economic areas, together with the potential for new markets in developing countries, output would be doubled again in the

doubled again in the next four years.

Speaking on exports Mr. Se well stated that from a modest export of 15 per cent. of their production in 1956, they had substantially increased their exports to the point exports to the point where they were now currently exporting currently exporting approximately 40 per cent. of their production, one-third of which was dollar earning. Part of their success in creating this increase he attributed to the creation last year of an international sales

force.

Jack Olding and
Co., Ltd., Hatfield,
Herts, are the United
Kingdom distributors
for Yale Trojan range
of tractor shovels.



Trojan model 204

### READY MIXED PLANT SERVES HARLOW **NEW TOWN**

THE first ready mixed concrete plant to I serve the new town of Harlow and the surrounding area recently commenced production.

The plant, owned by Ready Mixed Concrete, Ltd., was designed and manufactured to their own specification. An overhead aggregate storage hopper having a total capacity of 80 cu. yd., is divided into four compartments and is mounted directly

compartments and is mounted directly above the batch weigh-hopper.

The two basic ground levels enable materials to be tipped directly into the hoppers from lorries approaching the plant from the higher level across an inclined 18ft.-wide timber decked steel gantry. Open mesh seel wheel tracks span the storage to enable material to be fed to the compartments at the far side of the structure. compartments at the far side of the struc-

ture.

A cement storage silo, having a total capacity of 40 tons, is let into the side of the plant, remote from the approach gantry and extended above the general level of the steel decking. Cement is delivered to site in pressurised containers and fed to the silo from the low level through the normal type of feed pipe. A "Visco" static bag filter surmounts the silo to prevent pressure build-up when loading.

The weigh-hopper which carries sufficient materials for 4 cu. yd. of concrete is divided into two separate compartments, individual weights being recorded by Parson "Multiweigher" equipment Accurate water control is achieved by incorporating an MTT Kort meteor. MT2 Kont meter.

#### LIGHTWEIGHT CAVITY WALL **BLOCK**

Hemel Hempstead Lightweight

Hemel Hempstead Lightweight Concrete, Ltd., Redbourn Road, Hemel Hempstead, Herts., have developed a new 18in. by 9in. by 10in. lightweight cavity wall block providing a high thermal insulation. The Caviblock, as it is called, is designed for full loadbearing applications. Its cross-section consists of two 4in. cavity blocks, themselves separated by a 2in. cavity. A corner block is provided which is laid either face up giving bonding in courses.

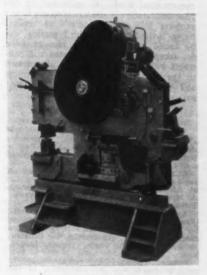
in courses.

A square yard of cavity wall is produced with eight blocks. The material of the blocks is the same as that of the Hemelite range, the key being suitable for plaster and exterior renderings.

## PUNCHING AND SHEARING MACHINE

THE range of metal working equip-THE range of metal working equipment made by Kingsland Engineering Co., Ltd., 25 Hackney Road, London, E.2, has been increased by the addition of a power punching and shearing machine, the J.21.

Punching is actuated by one arm and cropping, notching and shearing are operated by a separate arm at the opposite end of the machine. For punching the throat is



J.21 machine

18in. deep and the height is 9in.

18in, deep and the height is 9in. Blanks as large as 6in, diameter can be accommodated and the standard punching capacity is 1in, diameter through in, mild steel. There are two apertures for angle and section cropping. Capacities can be varied to suit specific requirements. The "A" aperture is usually used for angle cropping and the "B" for work such as tee, channel, rounds, squares, joists, or further angle cropping.

angle cropping.

The plate and bar shearing blades are four-edged and are provided with adjust-ment for cutting very thin or thick sheet or bar. Plate can pass right through the

The notching unit is detachable and has

The notching unit is detachable and has hand adjustment to ensure the notch is made in the correct place. Vee or rectangular notching is possible.

The capacities of the J.21 are as follows: Punches 1in. diameter through in.; shears plate in.; shears bar 4in. by in., or 10in. by in.; crops angle 4in. by 4in. by in.; crops channel 6in. by 3in.; crops joists 6in. by 3in.; crops squares 1in.; crops rounds 1in.; notches in.; punch throat 18in.; length of shear blades 12in.; motor horse power 5.

#### ASPHALT PLANT FOR WIMPEYS

Wimpey Asphalt have ordered a com-plete Mk. 60/90 semi-mobile asphalt plant from Goodwin Barsby and Co., Ltd., of Leicester.

The plant is to be installed on the Birmingham/Stafford section of the M.6

Trade and Company News continues on page 744. Subsequent articles include Talking of Safety, by "Dragee" (p.746), Taylor Woodrow Complete 1,000th House for Smith's Organisation (p.747), N.F.B.T.E. Representatives on Government Bodies and Joint Boards (p.748), Football Stand will Seat Over 1,000 Spectators Under Cover (p.749) and Barbados Deep Water Harbour (p.751). Harbour (p.751).

## Gurrent **Constructional** Activities

#### **PROJECTS** CONTRACTS AWARDS

THIS editorial feature provides readers with a comprehensive news service covering forthcoming private and public construction work. Commencing on this page information is given concerning future projects followed by details of tenders being invited. In the third section will be found news of tenders recommended for acceptance, tenders accepted and con-tracts awarded. Attention is also drawn to the advertisements covering contracts and appointments appearing in the front part of the Journal.

#### BUILDING AND DECORATING

(See also Housing Schemes)

(See also Housing Schemes)

Aberdeen.—The Governors have approved alterations to the mechanical engineering department and main technical building at Robert Gordon's Colleges, Aberdeen. Estimated cost £26,482.

Alcester, War.—M.E. have approved scheme for a central Roman Catholic secondary school at Alcester to serve Evesham, Stratford-on-Avon, Alcester, Studley and Wootton Wawen. Estimated cost £150,000.

Aylesbury, Bucks.—R.D.C. have granted planning permission, subject to conditions, for the provision of a small factory and office block at Dollicott, Haddenham, for Chartair, Ltd., Aylesbury, and Thame Airport, Haddenham.

ham.

Bangor, Caerns.—B.C. recommended to prepare details for the renovation of the public conveniences at Upper Bangor.

Barnstaple, Devon.—C.C. propose the erection of an hostel at Pilton junior training

Barnstaple, Devon.—C.C. propose the erection of an hostel at Pilton junior training centre.

Berkhamsted, Herts.—U.D.C. have approved plans for the erection of a new junior mixed infants' school on land alongside Durrants Lane for C.C.

Berwick, Northumb.—C.C. is to build a primary school at Falstone.

Biggleswade, Beds.—R.D.C. recommended to prepare scheme and invite tenders for the provision of bathrooms in the houses at East Road, Langford.

Bishop's Stortford, Herts.—Co. E.C. have approved plans for the transfer of St. Michael's C. of E. Primary School to a new site.

Boldon, Dur.—Co. E.C. are to extend Marsden County School; plans approved for the erection of four shops and maisonnettes at Fellgate Avenue, Boldon Colliery, for Jarrow Corporation.

Bootle, Lancs.—B.C. are to re-invite tenders for erection of two blocks of three shops with five maisonnettes over, two four-storey blocks of 12 maisonnettes and 27 garages, at Park Lane, Netherton.

Bradford, Yorks.—City Council recommended to apply for sanction to borrow £1,678 for provision of school meals accommodation at St. Winefride's R.C. Primary School.

Bristol.—Alec French and Partners, Pearl Assurance House, Queen Square, are the architects, for a seven-storey block of offices and showrooms at Baldwin Street, for McKay Securities.

Bury St. Edmunds, Suffolk.—Ministry have

Bury St. Edmunds, Suffolk.—Ministry have approved C.C's, scheme for the erection of a approved C.C's, scheme for the erection of a

Securities.

Bury St. Edmunds, Suffolk.—Ministry have approved C.C's, scheme for the erection of a clinic during 1961-62. Estimated cost £30,000.

Corby, Northants.—U.D.C. hopes to invite tenders during July or August for the construction of the Civic Centre. Enrico De Pierro and Associates, 139 Kensington High Street, London, W.8. are the architects for the scheme. Crawley, Sussex.—Development Corporation have approved plans for the erection of a £450,000 entertainment centre at High Street, Crawley New Town, for Nicholas Van Slochem, chairman of Van-Taylor Productions, Ltd. Robert S. Grinling, 2 Halkin Street, London, S.W.I., is the architect, C. F. Ainsley, 2 Bedford Square, London, W.C.I, is the quantity surveyor. C. J. Pell and Partners, 4 Manchester Square, London, W.I. are the structural engineers and Ewbank and Partners, Ltd., 10 Grosvenor Place, London, S.W.I., are the consultants. A short list of contractors from whom tenders will be invited has already been drawn up.

Cromer. Norfolk.—East Anglian Regional Hospital Board have appointed L. E. G. Hunt, 10 Cathedral Street, Norwich, as architect for rebuilding of women's ward annexe at Cromer and District Hospital.

Darlington, Dur.—Sketch plans have been prepared for psychiatric unit at Memorial Hospital, for Newcastle Hospital Board. P. H. Knighton, chief architect.

Dewsbury, Yorks.—Charter and Evans. Richmond Chambers, 73 Great George Street, Leeds, 1, are preparing bills of quantities for crection of a new shop and offices at Daisy Hill corner, for occupation by Herbert Pickersgill, Firth. Son and Blackburn, architects, Broadway House, Crackenedge Lane, Dewsbury.

Dover, Kent.—B.C. recommended to approve the external painting of 445 houses and 14 garages during 1961-62 Estimated cost £77.00.

Downham, Norfolk.—R.D.C. have approved an application by Southgate Tubular Products, Ltd., 148 Chase Side, London, N.14, for permission to erect a 5,500 sq. ft. industrial building at Methwold.

Driffield, Yorks.—East Riding C.C. expect to commence work in June on the erection of a new fire station. Estimated cost £32,500.

Ealing, Middx.—North West Metropolitan Regional Hospital Board are to invite tenders in approximately three months for the erection of new out-patient and casualty department at King Edward Memorial Hospital. Plans prepared by regional architect to the Board, and Clark, Nicholls and Marcel, 21 Westborne Grove, London, W.2, are the structural engineers for the scheme.

Eastbourne, Sussex.—B.C. recommended to submit to Ministry for approval, plans for the provision of a junior training centre for handicapped children. Estimated cost £61,950.

Edinburgh.—Kinnear and Gordon, 54 Manor Place, Edinburgh, are the consulting engineers for the construction of a five-tier car park with provision for 800 cars at Castle Terrace and King's Stables Road for City Council. Estimated cost £343,350.

provision for 800 cars at Castle Terrace and King's Stables Road for City Council. Estimated cost £343,350.

Dean of Guild Court have approved extensions to shop premises at Crewe Road North for Leith Provident Co-operative Society

North for Leith Provident Co-operative Society Ltd., £40,000.

Elstree, Herts.—R.D.C. have approved in principle plans for the conversion of the Thatched Barn, the former roadhouse on the Barnet By-pass, into a motel for Irving Allen, Newman Levinson and Partners, 9 Mansfield Street, London, W.I, are the architects for the scheme.

Evesham, Worcs.—B.C. to consider scheme for the provision of toilets, dressing rooms, refreshment and committee rooms at Crown Meadow. Estimated cost £5,000 to £6,000.

Folkestone, Kent.—B.C. recommended to approve scheme for the erection of a training centre and hostel at Parkfield Road, for C.C.

Town Planning Committee have approved, subject to conditions, revised outline application for a block of flats and maisonnettes, comprising 52 dwellings with parking facilities for 62 cars at Beach Marine Hotel, The Riviera, for V. V. Behar, Palm Beach, Sandgate, Folkestone.

Gateshead. Dur.—Walter Willson, Ltd.

prising 52 dwellings with parking facilities for 62 cars at Beach Marine Hotel, The Riviera, for V. V. Behar, Palm Beach, Sandgate, Folkestone.

Gateshead, Dur.—Walter Willson, Ltd., Groat Market, Newcastle upon Tyne, are to erect offices, caretaker's flat, and warehouse, on Team Valley trading estate. The architect is C. S. Errington, 46 Grainger Street, Newcastle upon Tyne.

Borough Engineer has prepared final sketch plans for extensions to Shipley Gallery. The cost will be about £40,000.

Simpson Lawson and Partners, Emerson Chambers, Blackett Street, Newcastle upon Tyne, are the architects for converting former school kitchen at Hawks Road, into slaughter-house, etc., for Hay and Hindmarsh, Ltd., Saltmeadows; G. H. Gray and Partner, Portland Terrace, Newcastle upon Tyne, are architects for pattern storage building at Earlsway, Team Valley estate, for Sigmund Pumps, Ltd.; Scottish Brewers, Ltd., City Road, Newcastle upon Tyne, are to erect public house at the corner of Ann Street and High West Street, the architects are Arthur and Kirkup, 13 Swinburne Street, Gateshead; G. E. Charlewood, 14 Neville Street, Newcastle upon Tyne, has prepared plans for vicarage for St. Chad's Church; a men and boys' club is to be built at High Street, Wrekenton, the architect is E. A. Gunning, 18 Eldon Square, Newcastle upon Tyne.

Hampshire.—C.C. recommended to approve the provision of a youth wing at the Hurst County Secondary School, Baughurst. Estimated cost £7,917.

Harrogate, Yorks.—B.C. recommended to approve planning permission, subject to condi-

tions, for construction of new station entrance with offices above and a store fronting Station Bridge with offices above at Station Parade/Station Bridge, for British Raiways; erection of a three-storey block of offices to link up with existing premises at rear of 1 Victoria Avenue, for Shop and Store Developments, Ltd., 12 St. George Street, London, W.I. erection of classroom and games block and a building to house filtration plant for swimming bath at police training college, Yew Tree Lane, for West Riding C.C.

Planning permission granted for erection of amenity block, animal block and laboratory block for research establishment at Otley Road, for Trustees of the Tobacco Manufacturers Standing Committee.

B.C. recommended to consider the construction of new baths on the Coppice Beck site.

Haverhill, Suffolk.—Ministry have approved C.C.'s schemes for the erection of an old people's home and an ambulance depot-clinic during 1961-62. Estimated cost £30,000 and £28,000, respectively.

Hemel Hempstead, Herts.—Co. E.C. have approved extensions to the Municipal Library at Coombe Street and to the kitchen accommodation at Hobbs Hill and Chaulden Primary Schools. Estimated cost £5,248 and £11,000, respectively.

Hertford. — B.C. recommended to Invite tenders for the erection of 30 garages on the Upper Cockbush Field housing estate.

Hinckley, Leics.—Co. E.C. have approved the provision of a temporary building for use as a machine shop at the College of Further Education. Estimated cost £1,000.

Holland.—E.C. to apply for permission to include in 1961-62 programme scheme for the McKnight County Primary School in the Woodville Road area, Boston. Estimated cost £3,000.

Holmfirth, Yorks.—U.D.C. recommended to approve plans for improvements to fire station.

Woodville Road area, Boston. Estimated cost £23,000.

Holmfirth, Yorks.—U.D.C. recommended to approve plans for improvements to fire station.

Hunstanton, Norfolk.—U.D.C. to prepare sketch plans for the development of the Clift car park, incorporating a cafe, shop with living accommomation and a block of lavagories.

tories.

Illord, Essex.—B.C. recommended to proceed with scheme for the remodelling of Goodmayes Primary School; appoint W. V. Zinn, Collingham House, Eagle Street, London, W.C.1, as consulting engineers for the construction of a multi-storey garage at Balfour Road, estimated cost £100,000; approve, in principle, the provision of multi-storey parking in two floors above British Railways lock-up garages at Goodmayes Station, £32,000.

Irthlingborough, Northants.— U.D.C. have proved the erection of a community centre for the Addington Road area. Estimated cost £5,000.

Kettering, Northants.— Oxford Resional

approved the erection of a community centre for the Addington Road area. Estimated cost £5,000.

Kettering, Northants.— Oxford Regional Hospital Board have approved sketch plans for alterations to the Nightingale ward at the General Hospital. Estimated cost £7,800.

Leeds.—City Architect to be asked to prepare sketch plans for the erection of a maternity and child welfare clinic in the Woodsley Road clearance area.

City Council recommended to authorise expenditure of £5,000 on alterations to form new Court accommodation at Town Hall.

Leek, Staffs.—R.D.C. to obtain tenders for external treatment to the brickwork of the eight council houses at Longnor.

Leicester.—Shelbourne Properties to erect a three-storey building with shops on the ground floor and showrooms on the upper floors at corner of Charles Street and Kildare Street. Taylor, Son and Bracken, London Road, St. Albans, are the architects, and Gadbury Bond and Co., 13 Sackville Street, London, W.I, the development consultants for the scheme. Estimated cost £100,000.

Leyton, Essex.—B.C. recommended to negotiate tender with J. and R. Rooff, Ltd., 679 Barking Road, London, E.13, for the erection of 21 garages on land at 4 Vicarage Road; invite tenders from selected contractors for the provision of a carpenters' shop, machine shop and timber store at the Depot and the construction of public convenience at Crownfield Road.

Newcastle upon Tyne.—Morrison and Short.

Newcastle upon Tyne.—Morrison and Short, 11 Clayton Road, Newcastle upon Tyne, are the architects for proposed showroom altera-tions in Buckingham Street for W. Simpson: Vickers Armstrongs (Engineers), Ltd., Elswick Works, Newcastle upon Tyne, propose show-

rooms and offices in Scotswood Road and have prepared their own plans; R. F. Hall, 11 John Street, Cullercoats, Tynemouth has prepared plans for extending paint spraying shop at North View, for Barron and Rollings; additions are proposed to brush factory in Brunel Street, for Securos, Ltd. The firm have prepared their own plans. It is understood that no contracts have been arranged.

City Council is planning the layout of an industrial estate on the south side of Scotswood Read.

industrial estate on the south side of Scotswood Road.

Newmarket, Cambs.—R.D.C. have approved the modernisation of 14 additional houses at Bottisham. Burrough Green, Dullingham and Ashley. Estimated cost £2,350.

Northumberland.—Tenders will shortly be invited by the C.C. for building a welfare home at Whitley Bay. Estimated cost £82,000.

Oban, Argyll.—Department of Health have approved plans prepared by the Burgh Surveyor for the construction of a new slaughterhouse. Estimated cost £15,000. Tenders are expected to be invited soon.

Estimated Cost £15,000, Tenders are expected to be invited soon.

Peterborough.—City Council recommended to appoint H. S. Scorer, 200 High Street, Lincoln, as co-ordinating architect, to prepare outline plans for the City Centre improvement

outline plans for the City Centre improvement scheme.

Plymouth, Devon. — City Council recommended to approve three stage scheme for the provision of a recreation centre in Central Park and to prepare plans for stage I comprising the erection of a swimming pool, callery, restaurant and bar, changing rooms, cloakrooms and all ancillary accommodation, etc. Estimated cost £250,000.

Portsmouth.—Welfare Services Committee have approved the erection of home for aged persons at Prince George Street, Portsea. Estimated cost £45,500.

Raunds, Northants.—U.D.C. recommended to apply for sanction to borrow £27,600 for modernisation of pre-war houses.

Rotherham, Yorks.—B.C. preparing plans for construction of children's home at Studmoor Road, Kimberworth Park, to enable tenders to be invited at an early date. Estimated cost 55,500.

be invited at an early use.

55,500.

St. Marylebone.—B.C. recommended to appoint A. W. Croser, 28 Victoria Street, London, S.W.I, as the quantity surveyor for proposed workshop block at the Cleansing

proposed workshop block at the Cleansing Wharves.

Salford, Lancs.—City Council recommended to apply for sanction to borrow £31,318 for purchase of equipment and minor capital works at the Peel Park Technical College and £19,950 for store, office and workshops at sewage disposal works.

Solihull, War.—C.C. recommended to approve plans for the first phase of the new Light Hall High School for Boys, Shirley.

Southend-on-Sea, Essex. — Tenders have been invited, and are due to be received shortly, for the erection of a 10-storey office block overlooking the main square of the Civic Centre, for County and Urban Properties, Ltd., Huckle and Durkin, 30 Queen Anne Street, London, W.1, are the architects and consulting engineers and E. C. Harris and Partners, Lynton House, Tavistock Square, London, W.C.1, are the quantity surveyors. Estimated cost £250,000.

Stafford.—B.C. recommended to prepare sketch plans for new swimming pool; approve in principle scheme for the redesign of the Market Square.

Stocknowt. Ches.—B.C. have appointed

Stafford.—B.C. recommended to prepare sketch plans for new swimming pool; approve in principle scheme for the redesign of the Market Square.

Stockport, Ches.—B.C. have appointed Brown and Spencer, 26 Cross Street, Manchester, 2, as quantity surveyors for the erection of an emporium at Brinnington neighbourhood unit; submitted to Ministry for approval scheme for the erection of a wing for youth service purposes at proposed new community centre at Brinnington, estimated cost £10,000; have approved site and sketch plans for proposed technical school; are inviting tenders from selected contractors for rection of phase II of the Stockport Colloge of Further Education.

B.C. have approved plans for the erection of a three-story administrative building and single-storey loading block at Broadstone Works, Broadstone Road, for General Electric Co., Ltd., Victoria Bridge, Manchester, 3; demolition of The Hawthorns and erection on site of three-storey office and showroom building with factory on land at rear for Nurses' Outfitting Association, Ltd., 36 King Street, Manchester, 2.

Stoke-ou-Trent, Staffs.—City Council recommended to prepare scheme for 20 garages at Lillydale Road, Townsend; apply for sanction to borrow £14,980 for conversion of the existing farm buildings at Blurton Farm into a works deput.

works depot.

Sunderland, Dur.—Further factory additions covering 44,000 sq. ft. are proposed for Ericsson Telephones, Ltd. The work will be carried out under the authority of North-Eastern Trading Estates, Ltd., Gateshead. The architects are Newrick and Blackbell, 58 John Street, Sunderland, No contracts have been let.

Additions are proposed to St. Anthony's R.C. School, The architects are W. and T. R. Milburn, 4 Grange Terrace, Stockton Road,

R.C. School.
Milburn, 4 Grange Terrace,
Milburn, 4 Grange Terrace,
Sunderland.

Tynemouth, Northumb.—E.C.'s scheme for
the erection of a new primary school near
the erection of a new primary school near
the erection of Learner of Claremont

Mildurn, 4 Grange Terrace, Stockton Road, Sunderland.

Tynemouth, Northumb.—E.C.'s scheme for the erection of a new primary school near Whitehouse Lane is out to tender. The architects are J. G. Cowe and Son, I Claremont Terrace, Newcastle upon Tyne, and the quantity surveyor is J. S. Glover, 13 Winchester Street, South Shields,

Wellingborough, Northants.—U.D.C. have approved conversion work at Hattondale to provide 14 bed-sitting rooms for elderly folk and accommodation for a warden. Estimated cost £10,500.

West Hartlepool, Dur.—Bell and Spouse, 10 Scarborough Street, are to prepare plans for additional science laboratory at Brierion Modern School for Girls, for the E.C.

West Lothian.—Mott, Hay and Anderson, 9 Iddlesleigh House, Caxton Street, London, S.W.I, are the consultants for a car park for 500 cars proposed for the south end of the Forth Road Bridge.

West Suffolk.—Standing Joint Committee have prepared revised plans for county police and divisional headquarters at Bury St. Edmunds. Estimated cost £120,000.

Willesden, Middx.—B.C. recommended to approve plans, subject to conditions, for the demolition of existing building and erection on site of the Canterbury Arms public house at corner of Salusbury and Rupert Road, for Ind Coope (London), Ltd., Victoria House, Vernon Place, London, W.C.1.

#### ELECTRICAL

Wanstead and Woodford, Essex.—B.C. recommended to invite tenders from selected contractors for electrical installation at Eastern Avenue housing estate.

#### FENCING

Bradford, Yorks.—City Council recommended to approve the erection of fencing at the Airport. Estimated cost £1,230.

#### GAS AND WATER SUPPLY

Bradford, Yorks.—City Council recommended to approve the laying of new water mains, Estimated cost £10,000.

Huntingdon.—Ministry have approved, subject to conditions, B.C.'s scheme to extract water from the River Great Ouse near Brampton Mill.

Northampachine. Ministry have apart of the conditions of the conditions

Brampton Mill,
Northamptonshire.—Ministry have granted £1,250 towards the cost of a mains extension for agricultural purposes from Rushton to East Carlton for the Mid-Northamptonshire Water Board. Estimated cost £2,489.

#### HEATING AND VENTILATING

Wanstead and Woodford, Essex. — B.C. recommended to invite tenders from selected contractors for the provision of central heat-ing in houses to be erected at Eastern Avenue

HOUSING SCHEMES

Aylesbury, Bucks.—R.D.C. to apply for planning permission for the erection of 14 dwellings on site adjoining Ashgrove Gardens, Whitchurch.

Chelmsford, Essex.—B.C. have appointed A. N. Woodward, 62a Station Road, Upminster, as quantity surveyor for the erection of 40 flats at Meadgate estate (plans are by William D. Key, architect, 3 Tindal Square, Chelmsford); G. Walford, 7 St. James's Street, London, S.W.I, as quantity surveyor, and R. Travers Morgan and Partners, 60 Aldermanbury, London, E.C.2, as consulting engineers for 32 maisonnettes at Meadgate estate (plans by Roff Marsh, architect, 125 New London Road, Chelmsford).

Dalkeith, Midlothian.—Dean of Guild Court have approved plans for 61 houses at Shadepark for B.C. Estimated cost £100,000.

Dawley, Salop.—U.D.C. to submit for outline planning permission, scheme prepared by James Hickman and Sons, architects, I Market Street, Wellington, for the erection of 220 dwellings at Horsehay.

Deal, Kent.—B.C. recommended to approve, for submission to county planning authority, layout plans for the erection of 12 houses and 12 maisonnettes at Horne's Farm Estate.

Durham.—E. Pye and Sons, East Parade, Bishop Auckland, are to erect houses on 26 acres of land surrounding Brancepoth Castle.

North-Eastern Housing Association, Ltd., Windsor Terrace, Newcastle upon Tyne, are to erect 100 houses on the Newton Hall estate, Durham City. No architects have yet been selected. Roads and sewers will be constructed by the City Council and tenders will be invited for this work.

Ediaburgh.—Dean of Guild Court have approved the following: Erection of a hostel, a warden's house and 18 cottages for aged persons at Niddrie Mains Road for City

Council, estimated cost £126,000; 122 houses and 13 garages at Telford Road and Grigor, Avenue, for James Miller and Partners, Ltd. 18 George Street, Edinburgh, 2, £255,000.

Epsom and Ewell, Surrey.—B.C. are preparing bills of quantities for the erection of six dwellings at the junction of Chessington Road and Longmead Road and working drawings for 12 flats at Ruxley Lane.

Gateshead, Dur.—M. Grady, Ltd., Broadwood Road, Newcastle upon Tyne, are to erect 24 flats at Hillside, Saltwell Road.

Glasgow.—Special committee on overspill have approved the provision of 200 houses at Inverkeithing and 150 houses at Dunbar to be built over the next five years.

Housing Committee have approved layout plan for 90 houses at Graggan Drive replacing 30 temporary houses.

Housing Control of the Mouses at Graggan Division of the Mouses at Graggan Division of temporary houses.

Scottish Special Housing Association propose two 15-storey blocks containing 112 flats at Toryglen North.

T. S. Cordiner, 261 West George Street, Glasgow, C.2, is the architect for the redevelopment of Hillpark for City Council. The plan includes a secondary school, primary school, community centre and 1,000 flats in multi-storey construction.

Mouse — B.C. recommended to appear the mouse of the mouse

multi-storey construction.

Harwich, Essex.—B.C. recommended to approve plans for the erection of a pair of houses at Brookman's Farm, Dovercourt. Estimated cost £5,000.

Hertford. — B.C. recommended to approve plans for the provision of 11 flats and eight bungalows at Thieves Lane and 11 houses with garages at Bentley Road, Sele Farm housing estate; one- and two-bedroom flats in a four-storey block at Horns Mill housing estate.

Farm housing estate; one- and two-bedroom flats in a four-storey block at Horns Mill housing estate.

flkeston, Derbys.—B.C. recommended to negotiate tender with F. Sisson and Sons, Ltd., 79 Cromford Street, Nottingham, for the erection of a further 30 dwellings at Kirk Hallam estate (scheme 39).

Kendal, Westmor.—B.C. recommended to prepare detailed plans for the erection of a block of flats at Milinthorpe Road.

Kingston-upon-Thames, Surrey.—B.C. recommended to approve sketch plans for the conversion and extension of 33 Gloucester Road into 21 units of accommodation, J. Green, 99 Malden Road, New Malden, is the architect for the scheme.

Malden Road, New Malden, is the architect for the scheme.

Leeds.—City Council recommended to approve layout plan for development of an area of land off Intake Lane, Stanningley, providing for the erection of 40 four-storey maisonnettes and 46 garages and City Architect be authorised to negotiate with G. Wimpey and Co., Ltd., for the erection of the dwellings and garages.

City Council recommended to appoint L. C. Wakeman and Partners, St. Pauls House, St. Pauls Street, Leeds, 4, quantity surveyors for the erection of 590 dwellings on the Raynville Road, Highfield and Belle Isle estates, Derrick Kendall, 21 Park Street, Leeds, 1, quantity surveyor for erection of 92 flats and 16 maisonnettes at New Carlton and Charter and Evans, 4 The Headrow, Leeds, 1, quantity surveyors for erection of 184 flats on the Poplar estate.

quantity surveyor for erection of 92 flats and 16 maisonnettes at New Carlton and Charter and Evans, 4 The Headrow, Leeds, 1, quantity surveyors for erection of 184 flats on the Poplar estate.

Leyton, Essex.—B.C. recommended to invite tenders from selected contractors for the erection of 11-storey flats and four-storey shops and flats at The Market site and adjoining land in St. Heliers Road.

Lowestoft, Suffolk.—Co. Planning Committee recommended to approve plans for 126 bungalows and garages near Gorleston Road, Oulton Broad, for B.C. recommended to approve plans for the erection of nine one-bedroom and three two-bedroom aged persons dwellings at Bailey Hill; layout plan for a further stage of development at Lewsey estate, comprising 235 houses, \*74 aged persons dwellings and 298 lock-up garages; invite tenders for the erection of 10 aged persons dwellings at the corner of Selbourne Road and Waller Avenue.

Maidstone, Kent.—Town Planning Committee have approved, subject to conditions, detailed plans for the erection of 54 pairs of semi-detached dwellings, between 271 and 307 Queens Road, and 54 dwellings comprising section one of Palace Farm estate, off Headingley Road, for Sterling Homes, Ltd., 26 Machester Square, London, W.l.

Morpeth, Northumb.—Additional housing developments are proposed at Goose Hill for B.C. Plans by the Borough Engineer.

Newcastle upon Tyne.—M. Grady, Ltd., builders, 74 Broadwood Road, Newcastle, Northern Ireland.—Housing Trust, 12 Hope Street, Belfast, 12, propose to acquire 360 acres of land at Dundonald for housing purposes.

Oakengates, Salop.—Shipway and Partners, Ltd. 1294 Bristol Road South, Birmingham.

Poses,

Oakengates, Salop.—Shipway and Partners,
Ltd.. 1294 Bristol Road South, Birmingham,
31, have purchased land at Trench and propose the erection of approximately 300 houses
on the site; Eaton Manor Estates, Lower

Gornal, Dudley plan the construction of approximately 300 houses on two sites in St. Georges.

Corn.-B.C. recommended

Georges.

Penryn, Corn.—B.C. recommended to obtain tenders for the erection of two blocks of four flats, two blocks of four houses and a pair of houses at Permarin Road.

Peterborough.—City Council recommended to re-invite tenders for the erection of 16 old persons flats at Oundle Road site; appoint Stirling Maynard and Partners, 8 Station Chambers, as structural consultants, and Hoare, Lea and Partners, 23 St. James Road, Birmingham, 15, as heating consultants, for the St. Mary's Street redevelopment scheme.

Co. Planning Authority have approved an outline application by H. J. Firman Ltd., Newark Road, proposed layout of a housing estate at Helpston Road, Glinton.

Reading, Berks.—B.C. recommended to appoint Mager and Greenaway, 52 Castle Street, Reading, as quantity surveyors and invite tenders for the erection of a block of six one-bedroom flats and 19 garages at the junction of Shinfield Road and Whitley Wood Road and 37 flats and 27 garages at Coronation Square.

St. Albans, Herts.—City Council recom-

Square

Square.

St. Albans, Herts.—City Council recommended to approve in principle scheme for the demolition of Tudorose Lodge, Old Harpen Road and erection on site of 48 dwellings and 38 garages.

City Council recommended to approve plans, subject to conditions, for the erection of 40 three-storey terraced houses with garages and 40 flats at 246-254 London Road for T. and B. (St. Albans), Ltd., 69 Victoria Street.

Sheffield. — City Council recommended to approve layout plan prepared by John Maidment, architect, Pembroke House, Palmerston Road, for development of an infilling site at East Bank Road by the erection of 190 dwellings and 138 garages; to approve layout plans submitted by the City Architect for proposed housing development in the Oxford Street section of the Netherthorpe redevelopment area and the layout as ancillary open space of lands between Wentworth Street and Bellefield Street.

Stockport, Ches. — B.C. have approved in principle scheme for the erection of two II-storey blocks of flats, 16 old people's flats and 34 garages at Victoria Park, second stage. Estimated cost £385,000.

Stockton-on-Tees, Dur. — George Wimpey and Co., Ltd., Orchard House, Fenwick Terrace, Newcastle upon Tyne, have purchased more than 46 acres of land at Hartburn, Sheffield. - City Council recommended

and Co., Ltd., Orchard House, Fenwick Terrace, Newcastle upon Tyne, have purchased more than 46 acres of land at Hartburn, for housing and shopping developments.

Stoke-on-Trent, Staffs.—City Council recommended to prepare scheme for bungalows on land fronting Pretoria Road,

Stoke-on-Trent, Staffs.—City Council recommended to prepare scheme for bungalows on land fronting Preforia Road,

Sutton and Cheam, Surrey.—B.C. recommended to approve sketch plans for the erection of a block of flats and houses at Church Farm, Spring Close Lane, Cheam.

Town Planning Committee have approved, subject to conditions, scheme for 26 three-bedroom houses, each with garage, in three three-storey blocks, eight houses fronting Christchurch Park, 12 fronting Cavendish Road and six fronting new cul-de-sac with access from Christchurch Park, at 7, 9 and 11 Christchurch Park; and 20, 24 and 26, Cavendish Road, Sutton, for M. J. Gleeson (Contractors). Ltd., Haredon House, London Road, North Cheam; 18 two-bedroom flats in three two-storey blocks of four and one two-storey block of six, and 18 private garages between 42 and 54 St. Albans Road, Cheam, for Percy Bilton, Ltd., 54-58 Uxbridge Road, London, W.5; outline application for 42 two-bedroom flats in one three-storey block all with communal gardens and 42 private garages, at corner of Farm Way and Lavender Avenue, Worcester Park, for Lavender McMillan (Contractors), Ltd., 54 Cheam Common Road, Worcester Park, Surrey.

Sutton, Surrey.—Edward D. Mills and Partners, 9—11 Richmond Buildings, London, W.1, are the architects for the erection of 114 units of accommodation at 66—80 Brighton Road, for the Mutum Property and Investment Co., Ltd.

Walsingham, Norfolk.—R.D.C. to erect 30 houses at Fakenham.

Wanstead and Woodford, Essex.—B.C. recommended to invite tenders for the erection of dwellings at Eastern Avenue housing site.

workington, Cumb.—B.C. recommended, subject to Ministry approval, to negotiate a tender with Thomas Armstrong, Ltd., South Street, Cockermouth, for the erection of 240 dwellings.

#### PLAYING FIELDS, PARKS, ETC.

Edmonton, Middx.—E.C. have approved to layout of site at the proposed Millfield chool as a playing field. Estimated cost

Leeds. — City Council recommended approve scheme for conversion of church

yard of St. Matthew, Holbeck, into a Garden of Rest. Estimated cost £1,250.

Salford, Lanes.—City Council recommended to apply for sanction to borrow £12,000 for development of the south-easterly portion of the Bolton Road playing fields; £26,000 for development of the Old Manchester Golf Course and £5,000 for development of Clowes park and nursery.

Stockport, Ches.—B.C. to submit to Ministry for approval plans for the layout of playing fields and provision of changing rooms, etc., at Frewland Avenue playing fields. Estimated cost £29,500.

### RIVER AND FLOOD PREVENTION WORKS

Great Yarmouth, Norfolk.—Land Drainage Committee of the East Suffolk and Norfolk River Board to submit to Ministry for grant aid, schemes for raising the left bank of the River Thurne and piling from Martham to Potter Heigham and strengthening the left bank of the River Yare near Breydon junction. Estimated cost £32,860 and £9,678, respectively.

#### ROADS, BRIDGES AND SITE WORKS

ROADS, BRIDGES AND SITE WORKS

Coventry.—City Council to apply for sanction to borrow £21,555 for provision of access ways to new hangars at Baginton Airport and for surfacing of a new tarmac area; approved scheme for laying out a square in front of the reconstructed Coventry Railway Station. Estimated cost £23,450.

Cowes, I. of W.—C.C. have approved schemes for minor improvements to Birmingham Road and Solent View Road, Gurnard. Estimated cost £7,500 and £5,500.

Epsom and Ewell, Surrey.—B.C. recommended to invite tenders for the construction of car park 3 at Upper High Street; approve plans for the making-up of Oakdale Road, West Ewell. Estimated cost £2,162.

Godstone, Surrey.—C.C. recommended to approve the provision of a pre-cast concrete footbridge over the railway at Hurst Green

approve the provision of a pre-sax conference footbridge over the railway at Hurst Green Halt. Estimated cost £5,000.

Leeds.—City Council recommended to apply for sanction to borrow £25,700 for the construction of roads and site works in Iveson House light industrial area; to approve the construction of St. Anthony's Road. Estimated

cost £725.

Leicester.—City Council recommended to approve scheme for extension of the dual carriageway in Narborough Road from Evesham Road to the borough boundary. Estimated cost £13,000.

carriageway in Narborough Road from Evesham Road to the borough boundary. Estimated cost £13,000.

Liverpool.—City Council recommended to apply for sanction to borrow £16,748 for reconstruction of the carriageways and footways in Childwall Park Avenue (Woolton Road to Childwall Park Avenue), Childwall Abbey Road (Darsefield Road to Taggart Avenue); and Childwall Priory Road to Childwall Abbey Road) and the paving of footways in front of new buildings in Cathedral Road, Manningham Road, Newhall Street, Fleet Street, Wood Street and Back Colquitt Street.

Maidenhead, Berks.—B.C. recommended to invite Soil Engineering and Contracting, Ltd., Resiliency Works, Marlow, Bucks., to submit a tender for the reconstruction of Cordwallis Road from Cordwallis Street to Craufurd Rise.

Maidstone, Kent.—B.C. recommended to prepare detailed plans for the making-up of parts of the footpaths on the east and west sides of Conway Road.

Manchester.—City Council recommended to approve scheme for widening the carriageway of Helmet Street, to provide carriageway of a uniform width of 24ft, throughout Helmet Street; to prepare and submit to the M.T. for grant approval a scheme for widening the carriageway of Waterloo Street, Blackley, from 22ft. to 30ft. and providing a footway 7ft, 6in. wide on each side.

New Barnet, Herts.—C.C. have approved

side.

New Barnet, Herts.—C.C. have approved a scheme for reconstructing Lyonsdown Road, between Longmore Avenue and Station Road, during 1961-62. Estimated cost £6,050.

Peterborough.—City Council recommended to approve in principle scheme for improving Church Street, Werrington.

Sheffield.—City Engineer authorised to carry out first stage of scheme for provision.

Sheffield.—City Engineer authorised to carry out first stage of scheme for provision of new highways depot at Warminster Road, involving the construction of an access road and planting of trees and hedges, estimated cost £3.000, and footpath works in Duke Street, £1,900.

Street, £1,900.
Solihull, War,—B.C. recommended to approve scheme for improvements in Bills Lane, Shirley. Estimated cost £4,400.
South Shields, Pur.—B.C. to construct a new road from Newcastle Road to Boldon Lane. Work will include the construction of two bridges, and L. G. Mouchel and Partners, 24 Claremont Place, Newcastle upon Tyne,

have been appointed consulting engineers for the bridges.

Stafford.—B.C. recommended to approve scheme for the raising and widening of Rickerscote Road Bridge. Estimated cost

Rickersons
£38.777.

Stoke-on-Trent, Staffs.—City Council recommended to prepare plans for construction of a footpath on the north-west side of Anchor Road, Longton, widening of bridge over Lyme Brook and part of Clayton Lane, and making-up of Gresty Street, Penkhull, Bath Street (part), Stoke, and Grasmere Terrace, Burslen, Sutton and Cheam, Surrey.—B.C. recommended to apply for sanction to borrow £3,000 for the widening of St. Nicholas Road,

Wanstead and Woodford, Essex.—B.C. recommended to prepare detailed scheme for the provision of a car park on land at Woodford Bridge.

### SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Chelmsford, Essex.—B.C. recommended to apply for sanction to borrow £1,150 for the provision of an outfall sewer at the Mid-Essex Technical College site (extension II).

Deal, Kent.—B.C. recommended to approve, for submission to Ministry, detailed plans of the drainage scheme prepared by G. B. Kenshaw and Kaufman, consulting engineers, £2 Victoria Street, London, S.W.1. Estimated cost £408 000

Downham, Norfolk.—R.D.C. to submit to Ministry and C.C. for approval, an outline sewerage scheme for Denuer. Estimated cost £75,715.

Hackney.-B.C. recommended to approve execution of a scheme for reconstruction of section of the sewer in Amhurst Park. Estimated cost £18,500.

Hexham, Northum sew sewage disposal 35,000. Northumb. - U.D.C.

135,000.

Leeds. — City Council recommended to approve scheme for sewering works in the Iveson House light industrial area. Estimated cost £7,220; to reconstruct the Brown Lane overflow which discharges into Wortley Beck £4,300.

Leek, Staffs.—Ministry have approved in principle R.D.C.'s proposals for sewer extensions to the Hough Hill and Hill Top areas of Brown Edge and tenders are to be invited. Liverpool.—City Council recommended to apply for sanction to borrow £2,238 for reconstruction of sewer in passage at rear of 2/26 Caros Street.

struction of sewer in passage at rear of 2/26 Caros Street.

Newcastle upon Tyne,—City Council recommended to proceed with second stage of drainage works at Fisher Street industrial area. Estimated cost £2,750.

St. Albans, Herts,—City Council recommended to apply for sanction to borrow £8,117 for the construction of a foul water sewer at Harpenden Road; approve extension of the foul sewer at Waverley Road to Townsend Drive. Estimated cost £1,500.

Stoke-on-Trent, Staffs.—City Council recommended to apply for sanction to borrow £10,000 for the 7th phase of the water closet conversion scheme.

Sutton and Cheam, Surrey.—Ministry have approved in principle, stage III of the reconstruction scheme for Worcester Park sewage works, for B.C. Estimated cost £240,000.

Uppingham, Rutland.—R.D.C. to submit to Ministry for approval sewerage and sewage disposal scheme for Ridlington. Estimated cost £15,400.

Wellingborough, Northants.—R.D.C. considerium proposeds for the construction of a sewerage of the construction of a s

cost £15,400. Wellingborough, Northants.—R.D.C. considering proposals for the construction of a main storm water drain and improvements to the open water course and culverts at Earls Barton. Estimated cost £3,500 and £6,000.

Barton. Estimated cost £3,500 and £6,000, respectively.
R.D.C. to apply for sanction to borrow £3,020 for a sewerage scheme for Doddington Road. Wilby.
Willesden, Middx.—B.C. recommended to approve in principle, scheme to divert the drainage of the Park Royal area into the Willesden sewers. Estimated cost £46,000.

#### STREET LIGHTING

Basingstoke, Hants.—B.C. recommended to apply for sanction to borrow £2.649 for installation of group A lighting in Kingsclere

Installation of group A lighting in Kingscher Road.

Luton, Beds.—B.C. recommended to apply for sanction to borrow £40.020 for the purchase and erection of lighting columns. Interns and ancillary equipment in connection with the 1961-62 street lighting programme.

Manchester.—City Council recommended to approve conversion of street lighting from gast to electricity for the year 1961-62 in Ancoats, the City area, Cheetham, Beswick, Bradford, Miles Platting, Blackley, Crumpsall, Victoria Park, Gorton, West Gorton and Moston.

Plymouth, Devon.—City Council recommended to apoly for sanction to borrow £2,094 and £969 for the provision of lighting at North Road and Normandy Way.

#### CONTRACTS

Full details of the Contracts marked • nll be found in our Advertisement Columns.
BUILDING AND DECORATING (See also Housing Schemes)

Gue also Housing Schemes;

Abingdon, Berks.—Alterations and additions to Council Offices, 60 Bath Street, for R.D.C. Documents from Council Surveyor, Council Offices, 60 Bath Street, Abingdon, Deposit 33s. Tenders by May 23.

Aireborough, Yorks.—Painting the outside metalwork and woodwork at Guiseley Town Hall and Oxford House, Oxford Road, Guiseley, and also the external painting of greenhouses at Micklefield Park, Rawdon, and Nunroyd Park, Yeadon, for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Micklefield House, Rawdon, Leeds. Deposit £1 ls. Tenders by May 23.

'Aldershot, Hants.—Selective tendering for B.C. Apply by May 29.

Argyllshire.—Following trades for Dunoon, for C.C.: (1) Excavator, concrete, brick, eccwork; (2) carpenter, joiner and irronmonger work; (3) asphalt work; (4) glazier work; (5) plumber and gastitter work; (6) plaster work; (7) wall tiling and floor finishes, etc.; (8) painter work; (9) iron railings and gates; (10) heating installation; (11) electric installation. Applications to the County Architect, County Offices, Dunoon, by May 15.

Arnold, Notts.—Painting of 25 houses, Killisick estate, for U.D.C. Documents from the Surveyor, Surveyor's Office, Arnol Hill House, Arnold, Deposit £2 2s. Tenders by May 29.

Banbury, Oxon—Repainting of houses, for

May 29.

Banbury, Oxon.—Repainting of houses, for Bc. The work is divided into six schemes of 12, 18, 20, 22, 32 and 34 houses, respectively. Written applications to Borough Engineer and Surveyor, Municipal Buildings, Marlborough Road, Banbury. Deposit £2 2s. Tenders by May 36.

May 26.

May 26.

Basildon, Essex.—Schools maintenance programme, 1961/62, for U.D.C.—Internal and external redecoration of schools to be executed between July 28 and September 4. Estimated value of work will vary from £250 to £1,800 for each school. Applications to the Engineer and Surveyor, Council Offices, 88 Town Square, Basildon, by May 15. Deposit £2.2s.

E2 2s.

Belfast.—Redecoration of St. Catherine's Primary School, Falls Road, Belfast, for School Manager. Documents from D. J. MacRandal, chartered architect, 17 Malone Road, Belfast, 9. Deposit £3 3s. Tenders by May 19.

Belford, Northumb.—Exterior repainting of 20 dwellings at Bedford, for R.D.C. Documents from the Surveyor, Council Offices, Bedford, Tenders by May 17.

Belfast Blank Kent.—Internal decognitions to

manager. Documents from D. J. MacRandal, chartered architect, 17 Malone Road, Belfast, 9. beposit £3 3s. Tenders by May 19.

Belford, Northumb.—Exterior repainting of 20 dwellings at Bedford, for R.D.C. Documents from the Surveyor, Council Offices, Bedford, Tenders by May 17.

Bridge-Blean, Kent.—Internal decorations to Council Offices, for R.D.C. Documents from Engineer and Surveyor, Council Offices, 41 Old Dover Road, Canterbury. Tenders by June 7.

Bristol.—Part demolition and reconstruction for office accommodation of interior of Old Treasury, Broad Street, for City Council. Apply to City Architect, Council House, College Green, Bristol, 1, by May 15.

Bury St. Edmunds, Suffolk.—Modernisation of 79 council houses, for B.C. Documents from Borough Engineer and Surveyor, Borough Offices, Bury St. Edmunds, Tenders by May 29.

"Camberwell. — Repainting street lighting columns, for B.C. Tenders by June 5.

Cardiff.—Erection of a new technical high school for boys at Leckwith, for City Council. The works comprise a three-storey teaching block, single-storey blocks, including assembly halls, kitchen, gymnasium, workshops, etc., and ancillary works. Documents from City Architect's Department, Municipal Offices, Greyfriars Road, Cardiff. Deposit £2 2s. Tenders by May 31.

Carrickmore, Tyrone.—Proposed primary school and school meals kitchen at Evishatrask, Carrickmore, including (1) building, works; (2) heating l.t.h.w.; (3) plumbing; (4) gas. for Very Rev. Patrick Hughes. Documents from John F. O'Doherty and Co., 21 Irish Street, Dungannon, Co. Tyrone. Deposit £3 5s. each (cheques). Tenders by June 3.

Caterham and Warlingham, Surrey.—External painting of 32 houses and 12 flats, for U.D.C. Documents from Engineer and Surveyor, Council Offices, Caterham. Tenders by June 1.

"Chislehurs' and Sidcup, Kent.—Erection of public conveniences, for U.D.C. Deposit £2 2s. Clutton. Som.—Site works and the supply and erection of 10 prefabricated battery type Ranges at Lansdown Crescent. Timsbury, for R.D.C. Documents from Servet

Cranfield, Bucks.—Following for The College of Aeronautics: (a) The supply of labour and materials in the execution of work and repairs required in the maintenance of college buildings for a period commencing from the date of acceptance of the tender, until the date of determination; (b) supply of labour and materials in the execution of works of internal and external redecoration required in the maintenance of college buildings for a period commencing from the date of acceptance of the tender until the date of determination. Applications to Engineer (Works and Buildings), The College of Aeronautics, Cranfield, Bletchley, Bucks., by May 15. Deposit £2 2s., by cheque payable to College. Tenders by May 31.

Denbigh.—Reflooring in maple strip of

pay 31.

Denbigh.—Reflooring in maple strip of the super, yd, of the Town Hall dance floor, B.C. Documents from W. T. Williams, was clerk, Town Hall, Denbigh. Tenders by lay 22.

May 22.

Denby Dale, Yorks.—External painting of 120 houses at Skelmanthorpe, for U.D.C. Documents from Surveyor, Council Offices, Denby Dale. Tenders by May 16.

\*Dewsbury, Yorks.—Erection of hall, etc., at Thornhill Lees school, for B.C. Tenders by June 12.

Dadworth. Yorks.—Painting of 106 houses at Padworth.

June 12.

Dodworth, Yorks.—Painting of 106 houses at Intake Crescent, house and shop at 92 Queen's Drive, and the Council Offices, for U.D.C. Documents from the Surveyor, Council Offices, Dodworth, Deposit £2 2s. Tenders by May 30.

Donegal, Eire.—Erection of fire station and sidence at Letterkenny, for C.C. Documents om County Secretary, County House, Lifford. eposit £5 5s. Tenders by May 31.

Deposit £5 5s. Tenders by May 31.

Down.—Exterior and interior redecoration at Cregagh Child Health Clinic, Belfast, for County Health Committee. Applications to the County Planning Officer, English Street, Downpatrick. Tenders by May 15.

Downpatrick, Down.— Construction and completion of factory at Saul Road, Downpatrick, for the Ministry of Commerce, Documents from the local office of the Ministry of Labour and National Insurance, English Street, Downpatrick, and the Ministry of Commerce, Room 30b, Chichester House, 64 Chichester Street, Belfast, 1. Deposit £3. Tenders by May 29.

Dorset.—Cleaning and painting.

Street, Belfast, 1. Deposit £3. Tenders by May 29.

Dorset.—Cleaning and painting one span of the Ferry Bridge, Weymouth, for C.C. Tenderers are asked to submit also an alternative price for cleaning and painting two spans. The bridge is a lattice steel structure of six spans, each of 45ft., connecting Weymouth and the island of Portland. Documents from the County Surveyor, County Hall, Dorchester. Tenders by May 23.

Downham, Norfolk.—Improvements to 46 pre-war dwellings, for R.D.C.: Stoke Ferry (8), West Dereham (6), Marham (6), Tottenhill (4), Barton Bendish (4), Runcton Holme (4), St. Germans (4). Wereham (2), Fincham (2), Shouldham (2), Crimplesham (2), Boughton (2). Applications, together with details of the sites for which documents are required, to A. B. Harrison, clerk of the Council, Council Offices, London Road, Downham Market. Deposit £2 2s., cheque payable to Council.

Dulverton, Som.—External painting of 30 houses at Barnefose, for R.D.C. Decuments

Omces, London Road, Downham Market. Deposit £2 2s., cheque payable to Council.

Dulverton, Som.—External painting of 30 houses at Barnsclose, for R.D.C. Documents from the office of the Public Health Inspector and Surveyor, Exmoor House, Dulverton. Tenders by May 23.

East Suffolk.—Works of repainting, for C.C.: Bungay Junior School, internal and external; Beccles Modern School, internal and external; Beccles Modern School, internal only. Applications to the County Architect, County Hall, Ipswich, before May 15. Tenders by June 12.

Essex.—Erection of Rayleigh the Glebe County Junior School for C.C., comprising the construction of foundations, plumbing, drainage, finishings, external works, etc. The buildings will be of prefabricated timber construction and will be supplied and erected by a sub-contractor, already nominated, within the contract. The value of the whole contract is £55,000. Applications to H. Conolly, county architect, County Hall, Chelmsford, by May 15.

Farmanagh.—Repainting of Enniskillen County Secondary Intermediate School for County Secondary Intermediate School for

architect, County Hall, Chelmstord, by May 15,
Farmanagh.— Repainting of Enniskillen
County Secondary Intermediate School, for
C.C. Documents from H. M. Jones, architect,
Education Officer, Enniskillen, or F. H. Wright
and Partners, quantity surveyors, 79 Boganic
Avenue, Belfast, 7. Deposit £2 2s. The work
is to be executed during the school's summer
belifax.

Gravesend, Kent.—Improvements to 610 houses on three estates, for B.C., comprising: Removal of kitcheners, installation of tiled surrounds, etc., and conversion of hot water systems. Documents from the Borough Engineer and Surveyor, 6 Woodville Terrace, Gravesend. Tenders by May 31.

Halifax, Yorks.—Alterations to Victoria Hall, phase 1, for B.C. (1) Builders' work (all trades); (2) floor finishes; (3) wall tiling; (4) pavement lights; (5) kitchen equipment; (6) electrical works; (7) bars, counters and

fittings; (8) goods lift; (9) ironmongery; (10) sanitary fittings. Written applications to the Borough Engineer, Crossley Street, Halifax, by May 17. Deposit £1.

Hebburn, Dur. — Part of 104 dwellings—central area redevelopment, 14 maison-nettes in two blocks four storeys high. Following sub-contracts in connection with the above houses by Direct Labour for U.D.C.: (1) Plumbing; (2) electrical installation; (3) plastering. Applications to the Engineer and Surveyor, Council Offices, Argyle Street, Hebburn, by May 16. Deposit £3 ss. (cheques payable to U.D.C.). Tenders by May 31.

Henley, Oxon.—Improvement to pre-war houses involving the provision of bathrooms, w.c.s., hot water systems, and drainage and ancillary works for R.D.C.: (1) Grove Road. Sonning Common—four houses; (2) off Kiin Lane, Binfield Heath—six houses. Documents from the Engineer and Surveyor, Easby House, Henley-on-Inames. Deposit £2 ze. acch. Tenders by May 29.

Hull.—Erection of a combined hostel and day centre in Leads Road for City Council. Documents from the offices of Gelder and Kitchen, architects, 120 Alfred Gelder Street. Deposit £2, payable to the City Treasurer. Tenders by May 19.

Huntingdon and Godmanchester, Hunts.—External painting of 126 houses, for B.C., including 84 in Huntingdon and 42 in Godmanchester. Documents from the Housing Manager. Ambury House, 89 High Street, Huntingdon. Tenders by May 24.

Irlam, Lancs.—External painting of 293 houses and bungalows at Cadishead in five contracts, for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Irlam, Lancs.—External poposit £1. Tenders by May 26.

Isle of Ely.—Witchford Secondary Modern School: Buildings to complete new school for C.C. Brief particulars of the work are as follows: New buildings with floor area of the works, including demolition of each single-storey workshop and laboratory and office of the Town Clerk, Gardenmore House, Larne, Deposit £2 zs. Tenders by June 5.

Lindeld, Staffs.—Repainting of approximately 189 houses on various estates, for City

W.C.2.
Londonderry. — Erection of new county primary school and residence at Straidarran for Co. E.C. Plans seen at offices of County Education Architect, Whitehall Chambers, New Row, Coleraine. Documents from Earl and Evans, Ulster Bank Chambers.

Waterloo Place, Londonderry. Chambers. Deposit £5.

Deposit £5.

Manchester.—Supply and erection of structural steelwork for sports pavilion at Wythenshawe Park, for City Council. Documents from City Architect, P.O. Box 488, Town Hall, Manchester. Tenders by May 18.

Newbury, Berks. — External painting of 92 houses at St. Georges Avenue estate for B.C. Documents from the Borough Surveyor, Municipal Buildings, Newbury. Tenders by May 18.

nouses at St. Georges Avenue estate for B.C. Documents from the Borough Surveyor, Municipal Buildings, Newbury. Tenders by May 18.

Newcastle upon Tyne.—Permanent brick garages on various sites as follows, for City Council: (Group 1)—90 garages on the Slatyford Lane estate: (2)—42 garages on the Slatyford Lane (West Denton and Copperas Lane estates. Applications in writing to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1. Tenders by May 24.

Northern Ireland.— External repainting of following for Northern Ireland Housing Trust: (a) Two shops, three garages and 24 flats at Ballyclare: (b) 24 flats and eight o.p.d.s at Castlereagh; (c) 39 dwellings at Kells: (d) 202 dwellings at Lisburn (Warren Park); (e) 18 dwellings at Whitehead (Windsor Avenue). Documents from Offices of the Trust, 12 Hope Street, Belfast, 12. Tenders by May 19.

Northwich, Ches.—Following for R.D.C.: Supply and erection of five precast concrete garages together with cindered access road in the parish of Anderton and the construction of approximately 200 sq. yd. of concrete surfacing together with ancillary works as an access road to an existing garage site in the parish of Cuddington. Documents from the offices of the Engineer and Surveyor, Whitehall, Hartford, Northwich. Deposit £2 2s. Tenders by June 1.

Prestwich, Lancs.—External painting of the Town Hall and adjacent buildings, for B.C. Applications to the Borough Engineer, Town Hall, Prestwich, Deposit £2 2s. Tenders by May 19.

"Ramsbottom, Lancs.—Structural alterations at Civic Hall for the U.D.C. Tenders by May 31.

Town Hall and adjacent buildings, for b. A. Applications to the Borough Engineer, Town Hall, Prestwich, Deposit £2 2s, Tenders by May 19.

\*Ramsbottom, Lancs.—Structural alterations at Civic Hall for the U.D.C. Tenders by May 31, Rochester, Kent.—External decorations and repairs to Corn Exchange for City Council. Documents from James A. Peel, city surveyor, 66 Maidstone Road, Rochester, Deposit £1 1s. Tenders by May 22.

Rochester, Kent.—Alterations and repairs to Denmark House, 70 Maidstone Road, for City Council. Documents from James A. Peel, city surveyor, 66 Maidstone Road, Rochester. Deposit £2 2s. Tenders by June 5.

Rothwell, Yorks.—Erection of a public convenience at Town End, Lofthouse, for U.D.C. Documents from the Public Health Inspector. Civic Buildings, Rothwell, Leeds. Tenders by May 29.

Civic Buildings, Rothwell, Leeus, May 29,
Salisbury and Wilton, Wilts. — Alterations and improvements including the erection of extensions, drainage works and alterations to the internal layouts of the houses, etc., at 15-37 (alt.), Duck Lanc, Laverstock, for R.D.C. Documents from the Council's Surveyor, 26 Endless Street, Salisbury. Tenders by June 5.
Southend - on - Sea, Essex. — Public convenience, Marine Gardens, Western Esplandoroush

R.D.C. Documents from the Council's Surveyor, 26 Endless Street, Salisbury. Tenders by June 5.

Southend - on - Sea, Essex. — Public convenience, Marine Gardens. Western Esplanade, for B.C. Applications to the Borough Architect, 30 Alexandra Street, Southend-on-Sea, accompanied by details of similar works previously undertaken and names of architects from whom references may be obtained.

Southport, Lancs.—Erection of new classroom and laboratory accommodation over existing workshops at Southport Technical College, for B.C. Documents from Borough Architect and Town Planning Officer's Department, 99/105 Lord Street, Southport. Deposit £2 2s. Tenders by May 25.

Standish-with-Langtree, Lancs. — Following works for U.D.C.: (a) Exterior repainting of 46 houses in Langton Avenue, Standish; (b) exterior repainting of 50 houses on the Coronation Road estate, Standish Lower Ground; (c) repointing (and other incidental works) of 32 houses on the Giants Hall Road estate, Standish Lower Ground, 36 houses on the Avondale scheme 1 estate, and 18 houses on the Avondale scheme 2 estate, Standish (one contract). Documents from H. Knowles, engineer and surveyor, Ashfield House, Standish, Tenders by May 29.

Tenterden, Kent.—Complete stripping off and re-tiling of the main roof at The Pebbles, High Street, together with other ancillary works, for B.C. Documents from R. J. Nichols, borough surveyor, Town Hall. Tenterden, Deposit £2 2s. Tenders by May 22.

Tones, Devon.—External painting of the following properties, for B.C.: 1-24 (inc.) Station Road; 1-35 (inc.) Swallowfields. Documents from the office of Joseph W. Smith borough engineer. Municipal Offices, Toines. Tenders by June 2.

Towester, Northants. — Following for R.D.C.: (Contract 242) Toweester—provision of bathroom, hot and cold water supplies with new grates, plastering to walls and redecoration as necessary, and erection of outbuildings and fuel store to 24 houses in Brackley Road;

of bathroom, hot and cold water supplies with new grates, plastering to walls and redecoration as necessary, and erection of outbuildings and fuel store to 24 houses in Brackley Road: (contract 245) Woodend—removal of road kerbs and the construction of concrete accesses, together with hardstandings and concrete bases prior to the erection of two concrete garages. Documents from Council's Surveyor.

163 Watling Street West, Towcester. Deposit 11 ls. each contract. Tenders by May 29.
Upton-upon-Severn, Worcs.—External painting of 20 houses at Bow Hill, Callow End, near Worcester, for R.D.C. Documents from the Surveyor, Council Offices, Upton-upon-Severn. Deposit £2 2s. Tenders by May 15.
Uttoxeter, Staffs.—External painting of 297 dwellings divided into three separate cortexts.

Uttoxeter, Staffs.—External painting of 297 dwellings divided into three separate contracts, for U.D.C. Applications to B. F. Cooper, surveyor, Old Bank House, Annexe, High Street, Uttoxeter, Tenders by May 24.

Ventnor, I. of W.—External decoration of 10 houses in Wroxall for U.D.C. Documents from the Council's Surveyor, Salisbury Gardens, Ventnor, I. of W. Tenders by May 27.

Gardens, Ventnor, I. of W. Tenders by May 27.

Wallasey, Ches.—Internal painting of various schools for B.C. Documents from the Borough Architect, Town Hall, Wallasey.

May 27.

Wallasey, Ches.—Internal painting of various schools for B.C. Documents from the Borough Architect, Town Hall, Wallasey. Tenders by June 12.

Warwickshire.—Painting work at the following schools, for Co. E.C.: External: Higham Lane High School; Hingham Lane County Junior and Infants School; Stockingford County School, timber classroom block; Swinnerton High School, H.O.R.S.A. block; Stockingford School meals kitchen; Manor Park Grammar School, temporary classrooms. Part internal: Manor Park Grammar School, Internal: Attleborough County School; Camp Hill Junior School; Galley Common County School; Red Deeps Special School; Stockingford Nursery School; St. Joseph's R.C. Infants School; Alderman Smith School kitchen; Arbury High School scullery; Attleborough County School scullery; Stockingford School clinic; Stockingford School meals kitchen. Documents from the Borough Surveyor, Council House, Nuneaton. Deposit 10/6 each. Tenders by May 30.

Wellingborough, Northants.—Modernisation of the following for R.D.C.: Contract 264—eight houses, Little Irchester; 265—six houses, Wollaston; 266—eight houses, Little Harrowden. Documents from C. L. Hanwell, surveyor, Rural Council Offices, 20 Oxford Street, Wellingborough, Deposit £2 2s. Tenders by June 1.

Welwyn, Herts.—Internal decoration of certain rooms in 22 houses for R.D.C. Written applications to the Surveyor, Council Offices, Welwyn. Tenders by May 23.

West Riding.—External and part internal painting at Beech Towers, Staincliffe, Dewsbury, for C.C. Documents from the Office of the Divisional Architect, Bishopgarth, Westfield Road, Wakefield. Tenders by June 1.

West Riding.—Following for C.C.: (a) Formation of laundry sorting rooms; (b) provision of dining room and kitchen servery, in the former casual block at Beech Towers, Staincliffe, Dewsbury, Documents from the Office of the Divisional Architect, Bishopgarth, Westfield Road, Wakefield. Tenders by June 12.

West Riding.—Following for C.C.: (a) Formation of laundry sorting rooms; (b) provision of dinin

#### **CLOTHING AND TEXTILES**

\*Dorset.—Supply of police clothing, for C.C. Tenders by May 19.

Tenders by May 19.

Hornchurch, Essex.—Supply and delivery of the following, for U.D.C.: 90 three-quarter length waterproof jackets; 90 pairs waterproof leggings; 60 full length mackintoshes. Documents from the Engineer and Surveyor, Council Offices, Billericay Lane, Hornchurch. Tenders by May 26.

Northern Ireland.—Supply of constabulary clothing for Government.

Pembrokeshire.—Supply of serge and waterproof uniform clothing, shirts, ties, leather gloves, helmets and caps for the year 1962. for County Police. Documents from the Chief Constable, County Police Headquarters, Haverfordwest. Tenders by June 16.

#### DEMOLITION

Bury St. Edmunds, Suffolk.—Demolition of houses: 3, 4, 5, 6, 7, 8 and 9 Lambert's Place. and 36 and 37 Risbygate Street for B.C. Documents from Borough Engineer, Borough

Offices, Bury St. Edmunds. Deposit £2 2s. Tenders by May 23.
Caerphilly, Glam.—Demolition of 32 Commercial Street, Senghenydd, for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Caerphilly. Tenders by May 26.
Nelson, Lancs.—Demolition of stone-built cottage property in Marsden Square and Hibson Road, Nelson, for B.C. Documents from Borough Engineer and Surveyor, Town Hall, Nelson. Tenders by May 20.
\*Penge, Kent.—Demolition works for U.D.C. Deposit £2. Tenders by May 24.
Spenborough, Yorks.—Demolition of 35 houses in the Northgate/Scott Lane area, Cleckheaton, for B.C. Documents from Borough Engineer, Spenborough Town Hall, Cleckheaton. Deposit £2 2s. Tenders by May 19.

Gleckheaton, for B.C. Documents Hom Borough Engineer, Spenborough Town Hall, Cleckheaton. Deposit £2 2s. Tenders by May 19.

Stone, Staffs. — Demolition of garages and stables at the rear of the Crown Hotel, Stone, Staffs., and store and garage, and 9, 11, 13 and 15 Crown Street, together with appurtenant works, including building of brick frontage wall, for U.D.C. Documents from Engineer and Surveyor of the Council, the Council House, Longton Road, Stone, Staffs. Tenders by May 20.

Worthing, Sussex. — Demolition of the properties 45, 46 and 47 Marine Parade, 9 Portland Road and 15 and 17 Paragon Street, for B.C. Documents from the Borough Engineer, Town Hall, Worthing, Deposit £2 2s. Tenders by May 18.

#### ELECTRICAL

Tenders by May 18.

ELECTRICAL

Bentley - with - Arksey, Yorks, — Electrical installation of 38 bungalows, Queens Drive, Doncaster, for U.D.C. Documents from the Surveyor to the Council, Council Offices, Bentley, Doncaster. Deposit £1 1s. Tenders by May 23.

Cardiff.—Complete electrical installation in the proposed Sub-Divisional Police Station at Canton, for City Council. Documents from the City Surveyor, City Hall, Cardiff. Deposit £2 2s., cheques payable to Corporation. Tenders by May 19.

Lancashire.—Rewiring and electrical installation at the Nelson Grammar School, for C.C. Application to the County Architect, P.O. Box No. 26, County Hall, Preston, by May 15.

Larne, Antrim.—Municipal offices—electrical installation, for B.C. Documents from A. K. McAuslan and Partners, consulting engineers, 16 Bedford Street, Belfast, 2 or at Larne Borough Council Offices, Gardenmore House, Larne. Deposit £3 3s. Tenders by May 29.

Londonderry.—Following for Co. E.C.: Draperstown school meals kitchen and dining hall — electrical installation; heating and plumbing installation. Documents from Varming and Mulcahy, 37 Malone Road, Belfast. Deposit £1. Tenders by May 26.

Londonderry.—Following at Straidarran new primary school for Co. E.C.: Electrical installation; heating and plumbing installation. Documents from Varming and Mulcahy, 37 Malone Road, Belfast. Deposit £1. Tenders by May 26.

Londonderry.—Following at Straidarran new primary school for Co. E.C.: Electrical installation; heating and plumbing installation. Pocuments from Wand M. Given, Hanover Place, Coleraine. Deposit £1 each contract. Tenders by May 23.

Manchester.—Electrical installation to aged persons' home, Felskirk Road, Wythenshaw, for City Council. Documents from Cydrachetect, P.O. Box 488, Town Hall, Manchester. Tenders by May 29.

Northern Ireland.—Installation of electric light points (exterior) The Beeches, Hambton Park, for Belfast Hospital Management Committee. Documents from Superintendent Engineer, Area Maintenance Department, Broadway. Tenders

#### FENCING

\*Finchley, Middx.—Chain link fencing, for B.C. Tenders by June 26.
\*Newcastle-under-Lyme, Staffs.—Fencing at Silverdale industrial site for B.C. Tenders by May 29.

Silverdale industrial site for the May 29.

\*Salford, Lancs.—Supply of fencing and gates for City Council. Tenders by May 20.

Surbiton, Surrey.—Replacement of chain link fencing at various recreation ground sites, for B.C. Documents from the office of R. Thirlway, borough engineer and surveyor, Council Offices, Ewell Road, Surbiton. Tenders by May 26.

#### GAS AND WATER SUPPLY

GAS AND WATER SUPPLY
Ampthill, Beds.—Laying of approximately
430yd. of 3in. diameter A.C. pipes at Water
Lane, Flitwick, for R.D.C. Documents from
the Engineer and Surveyor, The Limes, 12
Dunstable Street, Ampthill, Bedford. Deposit
£2 2s. Tenders by May 15.

\*Atcham, Salop.—East Atcham water scheme
for R.D.C. Deposit £2 2s. Tenders by May 31.
Belfast.—Following for Belfast City and
District Water Commissioners: Triplication of
the Bloody Bridge and Glasdrumman siphons,
involving laying and jointing of approximately
278yd. of 363in. steel pipes at Ballaghanery
Upper and Glasdrumman, Co. Down. Documents
from Chief Engineer, Water Office,
Belfast, 1. Deposit £10. Tenders by May 28.

Birmingham. — Reconstruction of Hagley Road reservoir at Edgbaston, contract 272, for City Council, comprising the erection of a reinforced concrete structure of 41m. gall. capacity within the existing reservoir, and ancillary works including mainlaying. Documents from A. E. Fordham, general manager and secretary, City of Birmingham Water Department, Council House, Edmund Street, Birmingham, 3, (P.O. Box 49). Deposit £5. Tenders by June 19.

ary, City of birmingnam water Department, Council House, Edmund Street, Birmingham, 3, (P.O. Box 49). Deposit £5. Tenders by June 19.

\*Breconshire.—Branch water mains for South-East Breconshire Water Board. Deposit £2. Tenders by May 29.

\*Donegal, Eire.—Construction of an extension to Creeslough water supply scheme, extension to Ards for C.C. The work comprises the laying of: 1,495 lin. yd. of 4in. class C piping; 2,396 lin. yd. of 3in. class C piping together with valves, hydrants, etc. Documents from County Engineer, County House, Lifford, Deposit £5. Tenders by May 18.

\*Down.—Triplication of the Bloody Bridge and Glasdrumman Syphonos; comprising laying and jointing of approximately 278yd. of 36 kin. steel pipes, for the Belfast City and District Water Commissioners. The works are situated in the Townlands of Ballaghanery Upper and Glasdrumman, Co. Down. Documents from the Chief Engineer, Water Office, Belfast, 1. Deposit £10. Tenders by May 26.

\*Manchester.—Haweswater aqueduct third pipeline, contract H.V. 7, for Corporation Waterworks. Tenders by May 30.

\*Manchester.—Haweswater aqueduct third pipeline, contract H.V. 7, for Corporation Waterworks. Tenders by May 30.

\*Manchester.—Haweswater aqueduct third pipeline, contract H.V. 6, for Corporation Waterworks. Tenders by May 30.

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\*Manchester.—Haweswater aqueduct third pipeline, contract ND/CP, for Corporation Waterworks. Tenders by May 30.

\*Manchester.—Haweswater aqueduct third pipeline, contra

June 1.

June 1.

\*North Bedfordshire. — Kempston trunk main (three contracts) for Water Board. Deposit £5 5s. each. Tenders by June 9.

Northern Ireland.—Supply and erection at Coolkeeragh Power Station, Londonderry, of circulating water pipework and valves, for Electricity Board. Documents from Kennedy and Donkin. consulting engineers, 64 Royal Exchange, Manchester, 2. Deposit £5 5s., cheques payable to the Board, Tenders by July 17.

July 17.

\*Poole, Dorset.—Pimperne and Moreton village mains for Poole and East Dorset Water Board. Tenders by June 5.

\*St. Neots, Hughs.—Water supply to Ferry and Great Staughton, for R.D.C. Deposit £2 2s.

and Great Staughton, for R.D.C. Deposit £2 2s. Tenders by June 7.

"Wem. Salov.—Hadnall water scheme, for R.D.C. Deposit £3 3s. Tenders by June 5.

West Dean, Glos.—Provision and laying of approximately 5,650yd. of 9in, castiron water pipes, together with valves and fittings, from Mile End to Sling Reservoir and Tufthorn Avenue, Coleford, for R.D.C. Documents from the Engineer and Surveyor, Council Offices, Coleford. Deposit £3 3s. Tenders by May 24.

"Worksop, Staffs.—New borehole for B.C. Deposit £3 3s. Tenders by May 29.

### HARBOURS, PIERS AND SEA DEFENCE WORKS

Argyllshire.—Construction of a two-berth car ferry pier in Craignure Bay, in the Island of Mull, in reinforced concrete, in the form of a straight arm 480ft. long, varying in width from 28ft. 6 in. to 40ft. over the outer 165ft., supported on vertical and raking R.C. piles, together with spring fendering, and all ancillary works, for C.C. Applications to A. N. Robertson, consulting engineer, Royal Bank Buildings, 10 East Princes Street, Helensburgh, by May 15.

laverness.—Reconstruction of north end of Citadel Quay, for Harbour Trust, comprising the supply and driving of steel sheet piling, placing of land ties and ancillary works. Documents from the offices of Alex. Grant. harbour engineer (Geo. Gordon and Co.). 6 Queensgate. Inverness. Tenders by May 17.

#### HEATING AND VENTILATING

HEATING AND VENTILATING

Belfast.—Following for City Council: (a)
complete heating installation; and (b) complete plumbing installation at Tower Street
Institute for Further Education. Documents
from the City Architect's Department, 40,
Academy Street, Belfast, I. Tenders by June I.
Bournemouth, Hants.—Removal of existing
heating installation, etc., complete, and provision of new oil-fired boiler and heating, hot
and cold water supply installation, for the
conversion of "Beaufort House," I Beaufort

Road, Southbourne, to form health home for B.C. Application to Borough Architect. Room 106, Town Hall, Bournemouth, by May 13. Tenders by May 27.

Cork, Eire.—Installation of low pressure hot water heating system at Little Island National School, Cork, for Office of Public Works, 51 St. Stephen's Green, Dublin, 2. Tenders by May 23.

Durham.—Following for C.C.: Registrar's Office, Jarrow—erection; Nursery School, Park Lane, Winlaton—(a) heating installation, (b) electrical installation; Tow Law County School,—(a) electrical installation; to heating installation; Horticultural Station, Houghall—repairs and improvements to cottages. Application to County Architect, South Street, Durham by May 17.

Melton and Belvoir, Leics.—Installing hot water systems in 44 pre-war houses in the village of Asfordby for R.D.C. Documents from the Engineer and Surveyor, Warwick Lodge, Dalby Road, Melton Mowbray. Tenders by May 27.

Scunthorpe, Lincs.—Installation of No. 2 oilfired steam boilers, rated at 5,000lb. of steam per hour, low pressure hot water heating and pool water services, together with ancillary pipe work at public swimming bath, Doncaster Road, for B.C. Applications to F. J. Bowyer, borough surveyor, Laneham Street, Scunthorpe, by May 19.

Stoke-on-Trent. — Following for City Council: (a) Heating installations: Penkhull

borough surveyor, Laneham Street, Scunthorpe, by May 19.

Stoke-on-Trent. — Following for City Council: (a) Heating installations: Penkhull C.S. School—hot water heating installation; Westheld Nursery, Longton—hot water heating boilers, (b) Electrical installations: Bucknall C.S. School—installation to extensions; Heron Cross C.S. School—installation to K.D.R.; Highgate C.S. School—installation to extensions; Edensor C.S. School—installation to catensions; Edensor C.S. School—installation to classroom and kitchen; Ubberley Health Centre—installation to new health centre. (c) Miscellaneous: Bucknall C.S. School—wrought iron railings and gates; various schools—resurfacing of playgrounds. Written applications to the City Architect, Kingsway, Stoke-on-Trent, by May 16. Deposit £2. each, Tenders by June 8.

#### HOUSING SCHEMES

HOUSING SCHEMES

Barnsley, Yorks.—100 traditional dwellings at St. Helen's housing estate, contract S.H. 7 for B.C., comprising: 30 pairs of three-bedroomed houses; 10 pairs of two-bedroomed houses; four two-bedroomed houses in one block; five pairs of one-bedroomed bungalows; six one-bedroomed bungalows in blocks of three. Documents from the Borough Engineer. Town Hall, Barnsley. Deposit £2 2s. Tenders by May 31.

\*Brentwood, Essex. — Thirteen houses, 34 flats and 22 garages for U.D.C. Applications by May 19.

Cheltenham, Glos. — Three pairs of singlestorey dwellings and the construction of approximately 150yd. of sewer at The Old Brickyard, Greet, for R.D.C. Applications to Rainger, Rogers and Smithson, Glenmore Lodge, Wellington Square, Cheltenham, by May 15. Deposit £2 2s.

\*Corby, Northants.—Old persons' flatlets for U.D.C. Deposit £3 3s. Tenders by June 10.

Disley, Ches.—Following, for R.D.C.: (a) 14 one-bedroom bungalows and site works on a site at the rear of Stanley Terrace, Buxton Road; and (b) the construction of access road and sewers for same. Applications to E. Turnbull, surveyor to the Council, Council Offices, Disley, near Stockport. Deposit £3 3s. Tenders by May 30.

\*East Suffolk.—One police house at Kessingland for Standing Joint Committee. Apply before May 16. Deposit £2 2s. Tenders by June 9.

\*Gillingham, Kent.—Twelve bungalows for Road of the standard of the services of the services of the survey of the Council Committee.

before May 16. Deposit £2 2s. Tenuers of June 9.

"Gillingham, Kent.—Twelve bungalows for B.C. Deposit £5 5s. Tenders by June 19.

Gipping, Suffolk.—One detached bungalow and site works in the grounds of the Council Offices at Needham Market, for R.D.C. Applications to the Engineer and Surveyor. Council Offices, Needham Market, near Ipswich, Deposit £2. Tenders by May 16.

Gloucester.—Ten one-bedroom bungalows at Ouedgeley for R.D.C. Applications to the Clerk to the Council. 9 Brunswick Square, Gloucester, by May 16.

Isle of Wight.—One block of flats at Chillerton for R.D.C. Documents from 30 Pyle Street, Newport. Deposit £2 2s. Tenders by June 5.

June 5.

Kiveton Park, Yorks.—Following contracts, for R.D.C. (1) Twenty-six traditional houses on the Red Hill site at Kiveton Park. (2) Twenty-two traditional houses on the High Nook site at Dinnington. Documents from the offices of B. D. Thompson, architect, 102, Bridge Street, Worksop. Deposit £3 3s., each. Tenders by May 25.

Lurgan, Armagh.—14 bungalows, with site and ancillary works at Timakeel, Portadown.

for R.D.C. Documents from the Rural District Council Office, Sloan Street, Lurgan. Deposit £2 2s. Tenders by May 31.

Lutterworth, Leftes.—Thirty-two houses and bungalows at Broughton Astley for R.D.C. Documents from A. F. Ashton, clerk of the Council, Council Offices, Lutterworth, Rugby. Tenders by May 30.

Norfolk.—Erection of dwellings and farm buildings and the demolition of premises at Outwell and Stow Bardolph for C.C. Applications to the County Land Agent, 20 Hill House Road, Norwich, Nor. 34S, by May 15.

Applications to the County Land Agent, 20
Hill House Road, Norwich, Nor. 34S, by
May 15.

Northern Ireland.—Nine dwellings and 14
garages, together with ancillary and engineering works, at Bangor (Whitehill Extension), for
Housing Trust. Documents from the Offices
of the Trust, 12 Hope Street, Belfast, 12. Deposit £3. Tenders by May 23.

Peterborough, — Sixty houses and nine
garages, Crown Street extension, in six groups
for City Council. Drawings and tender documents available from May 19, 1961. Last
date for receipt of tenders, June 12, 1961. Possession of site will be given on July 24,
1961. Documents from C. Peter Clarke, town
clerk, Town Hall, Peterborough, on and from
May 19, Deposit £2. Tenders by June 12.

Pewsey, Wilts.—Construction of roads and
sewers and a terrace of four two-bedroom bungalows and two pairs of two-bedroom bungalows and two pairs of two-bedroom bungalows on the North Tidworth housing estate, contract VII, for R.D.C. Documents from
Sutton, Griffin and Sweetnam, architects, 87
Northbrook Street, Newbury, Berks. Tenders
by May 26.

"Port Talbot, Glam.—22 dwellings for B.C.
Denosit £2 2s. Tenders by May 29.

Thedwastre, Suffolk.—Following, for R.D.C.:
Hinderclay two bungalows; Rickinghall Inferior four bungalows; Wattisfield three bungalows. Applications to J. H. Warren, architect 5, Angel Hill, Bury St. Edmunds. Deposit £2 2s., cheque. Tenders by May 30.

Wallsall, Staffs.—Seventy-four houses and
six bungalows, Darlaston Road allotment site;
12 houses, Mulberry Place, Bloxwich, for B.C.
Documents from M. E. Habershon, borough
engineer and surveyor, Council House, Walsall,
after May 15. Deposit £2 2s. Tenders by
June 5.

"Wattord, Herts.—Elderly persons' flats for
B.C. Apply by May 29. Tenders by July 5.

after May 15. Deposit £2 2s, Tenders by June 5.

"Watford, Herts.—Elderly persons' flats for B.C. Apply by May 29. Tenders by July 5.

Wigan, Lancs.—Fourteen Unity houses and eight Unity bungalows on the Wrightington Hospital site situate off Hall Lane in the parish of Wrightington for R.D.C. Documents from Surveyor to the Council, 10 Bridgeman Terrace, Wigan. Deposit £5 5s., by cheque payable to Council. Tenders by June 5.

Wolverhampton, Staffs.—Thirty dwellings having reinforced concrete raft foundations at Coronation Road, for B.C. Applications to the Borough Engineer, Town Hall, Wolverhampton, by May 16. Deposit £2 2s.

#### MATERIALS AND SUPPLIES

MATERIALS AND SUPPLIES

\*Aldershot, Hants.—Supply of oils, for B.C. Tenders by May 29.

Birmingham.—Supply and delivery of stores, as below, for a period of twelve months from July 1, 1961, for City Council. Applications to City Engineer and Surveyor, Baskerville House, Civic Centre, Birmingham 1, for:—(Schedule 4) Lead (red and white), linseed oil, white spirit and putty; (6) sash cords, rope, string and tarred yarn, etc.; (8) gas mantles; (9) hammer heads, shovels, forks, pick heads, etc.; (10) buckets, watering cans, paint kettles, oil bottles, riddles, etc.; (11) brushes (paint, etc.), brooms and mops; (12) road danger lamps; (13) broom and mop stales, file handles, hammere sledge and pick shafts, etc.; (18) steel tubes, steel conduit and fittings; (20) cotton covers—waterproof and rotproof; (21) rubber boots and delivery hose pipe; (22) building materials. To the General Manager, Birmingham City Transport, Council House, Congreve Street. Birmingham 3, for:—(Schedule (1) Oxygen, hydrogen, nitrogen, dissolved acetylene, butane, propane and medical gases; (2) files, hack saw blades, drills and screwdrivers; (3) belting (transmission), balata and leather; (14) screws, cotter pins, pressed nuts, nails and floor brads; (15) bolts, nuts, washers, etc.—black; (16) leathers and sponges; (17) rags, sponge cloths, cotton waste, etc.; (19) iron and mild steel bars, sheets sections and plates. To the Housing Manager, Bush House, Broad Street, Birmingham 1, for:—(Schedule 5) Glass—sheet, obscured, cast and lamp panes. Tenders by May 25.

"Cardiff.—Supply of timber flooring for City Cowneil Tenders by May 30.

"Dorking, Surrev, Supply of surface materials and application of tar for U.D.C. Tenders by May 24.

Flintshire.—Supply and delivery of safety rail fender (flexible beam), for C.C. Documents from the County Surveyor, Llwynegrin, Mold. Tenders by May 22.

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Larne, Antrim.—Supply and delivery to the Surveyor's Department, of traffic signs, posts, etc., in connection with parking by-laws and other traffic regulations, for B.C. Documents from the Borough Surveyor, Victoria Road. Larne. Tenders by May 29.

Manchester.—Following for City Council: Paraffin oil (burning and vaporising); motor spirit (commercial and premium grades). Documents from the General Manager, Corporation Transport Department, 55 Piccadilly, Manchester I. Tenders by May 16.

\*Plymouth, Devon.—Supply of mild steel for City Council. Tenders by May 24.

Plymouth.—Supply and delivery of 144

Plymouth.—Supply and delivery of 144 E.R.A. 2A fires and 144 tiled surrounds and hearths, for City Council. Documents from J. Ackroyd, city engineer and surveyor, Pounds House, Plymouth. Tenders by May 19.

#### PLANT AND MECHANICAL TRANSPORT

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Berkhamsted, Herts.—Supply and delivery of a 4-ton Bedford tipper for U.D.C. Documents from Engineer and Surveyor, Civic Centre, Berkhamsted. Tenders by May 17.

"Caernarvon.—Mechanical plant for B.C. Tenders by May 31.

Chester-le-Street, Dur.—Supply and delivery of one 7 cu. yd. Karrier Bantam with diesel engine, painted and lettered to the requirements of the Council, complete to manufacturer's standard specification and conditions of sale, for U.D.C. Documents from Engineer and Surveyor, Council Chambers, Chester-le-Street. Tenders by May 18.

Coulsdon and Purley, Surrey.—Supply and delivery of the following for U.D.C.: Four new Dennis Paxit Major Mark III continuous compression loading refuse collection vehicles; three new salvage trailers; one new Fordson diesel Dexta tractor; one new Weatherill 2HCR diesel mechanical shovel. Documents from Engineer and Surveyor, Council Offices, Purley. Tenders by May 17.

"Edinburgh.—Supply of loading shovel for City Council. Tenders by May 20.

Hoddesdon, Herts.—Supply and delivery of the following, for U.D.C.: (a) One 3-ton Bedford the following, for U.D.C.: (a) One 3-ton Bedford

City Council. Tenders by May 20.

Hoddesdon, Herts.—Supply and delivery of the following, for U.D.C.: (a) One 3-ion Bedford lorry (119in. wheelbase), in part exchange for and collection of a 1948 Bedford lorry; and (b) one 6-ton Bedford forward control refuse freighter (151in. wheelbase). with Eagle Compressmore body, in part exchange for, and collection of, a 1953 refuse freighter and trailer, Documents from the Engineer and Surveyor at Woodlands, High Street, Hoddesdon. Tenders by May 24.

by May 24, \*Malden and Coombe, Surrey.—Supply of plant for B.C. Tenders by June 10.

"Malden and Coombe, Surrey.—Supply of plant for B.C. Tenders by June 10.

"Manchester.—Supply of air compressors for Corporation Waterworks. Tenders by May 30.

Newcastle upon Tyne.—Supply and delivery of the following, for City Council: One 30cwt. delivery van (petrol driven); two diesel tractors two sets triple mounted gang mowers; three 30in. multi-mowers. Documents from the Director of Parks and Cemeteries, Jesmond Dene, Jesmond Dene Road, Newcastle upon Tyne, 2. Tenders by May 20.

Plymouth.—Supply and free delivery of the following to Prince Rock Depot, Macadam Road, for City Council: Three 24in. Dennis mowers, complete with grass box, balance bars, and throwing plates; one 30in. Dennis mower, complete with grass box, balance bars, and throwing plates; three Allen rotary sickles. 4-stroke, two speed drive, special long axles, and twin wheels. No official tenders forms or specifications will be issued. The Corporation reserve the right to order whole or part of the order. Tenders in a plain sealed envelope addressed to the Town Clerk, Pounds House, Plymouth, which must bear the words "Motor Mowers," but shall not bear any name or mark indicating the name of the sender. by 10 a.m. June 1.

"Prestatym, Flints.—Supply of plant for U.D.C. Tenders by May 26.

Tunbridge Wells, Kent.—Supply of six refuse collection vehicles, for B.C. Particulars from

\*Prestatyn. Flints.—Supply of plant for U.D.C. Tenders by May 26.

Tunbridge Wells, Kent.—Supply of six refuse collection vehicles, for B.C. Particulars from William Pickering, borough surveyor, Town Hall. Tunbridge Wells.

\*Tvidesley, Lancs.—Vibratory Roller for U.D.C. Tenders by May 31.

Wellingborough, Northants.— Supply of following for U.D.C.: (a) One portable rotary compressor (72 c.f.m. at 100 p.s.i.) and pneumatic tools: (b) one diesel/hydraulic wheeled loading shovel; (c) one 3/4-ton petrol tipping lorry. Documents from Engineer and Surveyor, Council Offices, Swanspool, Wellingborough, Tenders by May 23.

West Riding.—Supply of the undermentioned items of new highway plant for C.C. The figures in brackets indicate the number of units which may be purchased: Mechanical gulley emptiers (three); 3-ton diesel lorries (six); 5-ton diesel lorries (11): mechanical road sweepers (two); Massey-Ferguson industrial tractors with loading shovel (15); Massey-Ferguson industrial tractors with loading shovel, trailer and grass mower (two); Massey-Ferguson industrial tractors with loading shovel, trailer and grass mower (two); Massey-Ferguson industrial tractors with loading shovel, trailer and grass mower (two); Massey-Ferguson industrial tractors with loading shovel, trailer and grass mower (two); Massey-Ferguson

Ferguson loading shovel buckets (16); dumpers, 11½ cu. ft. (two); motor graders (one); fixed gritters (17); trailer gritters (two); 10/7 cu. ft. concrete mixers (10); 5/3½ cu. ft. concrete mixers (one); weed sprayers (three); tractor shovels, crawler (one); bulk gritter bodies (four); snowploughs, straight blade (one); motorised metal shears (one); cylinder grinding machines for grass mowers (one). Documents from the office of the Chief Mechanical Engineer, West Riding County Council, Highways and Bridges Department, Central Repair Depot, Lofthouse Park, near Wakefield, indicating the items for which the contractor is desirous of submitting tenders. Tenders by May 18.

#### PLAYING FIELDS, PARKS, ETC.

Camberwell.—Paving children's playground, blett Street/Delaford Road, for B.C., including 1,800

Ablett Street/Delaford Road, for B.C., including paving with tarmac (approximately 1,800 sq. yd.), providing chain link fencing, etc. Documents from Borough Engineer, Town Hall, Camberwell, S.E.5. Tenders by May 30. Canterbury, Kent.— Excavations and preparations for technical school's playing fields at Spring Lane for City Council. Area of site approximately 11 acres. Applications to the City Architect, Municipal Buildings, Canterbury. Deposit £2 2s. Tenders by May 29.

Canterbury. Deposit £2 2s. Tenders by May 29.

Gateshead, Dur.—Soiling and seeding, and incidental works, to verges and open spaces on the Leam Lane estate, for B.C. Documents from the Borough Surveyor, Municipal Buildings, Swinburne Street, Gateshead, 8. Deposit £2 2s. Tenders by May 29.

Lancashire.—Development of playing fields, etc., for C.C.: Chorley St. Michael's C.E. Secondary School; Farnworth Harper Green County Secondary School; Heyworth R.C. Primary School. Applications to the County Architect, P.O. Box 26, County Hall, Preston. by May 23.

Primary School. Applications to the County Architect, P.O. Box 26, County Hall, Preston. by May 23.

\*Rawfenstall, Lancs.—Construction of playing fields at Shadlock Cote Farm, for B.C. Deposit £2 2s. Tenders by June 5.

Romford, Essex.—Marking school playgrounds in white and yellow colour, for B.C., comprising 44 netball, tennis, basketball and rounders courts, and about 3,500 lin. yd. of 2in. wide lines. Documents from Borough Engineer and Surveyor, Town Hall, Romford. Deposit £2 2s. cheque. Tenders by May 26.

Sutton and Cheam, Surrey.—Supply and laying of concrete edging and the making-up of carriageways, and the reconstruction of various footpaths in Sutton cemetery, for B.C. Documents from C. Needham, borough organical surveyor, Municipal Offices, Sutton. Deposit £1, cheques payable to B.C. Tenders by May 26.

RIVER AND FLOOD PREVENTION

### RIVER AND FLOOD PREVENTION WORKS

WORKS

Newport, Mon. — Bettws Neigbourhood Unit, flood prevention scheme, for B.C., consisting of retaining works, construction of balancing reservoir (approximately 9 acres), with pitched earth banks and weirs, erection of flood control gate, reinforced concrete road bridge, prestressed concrete footbridge, and ancillary works. Documents from the office of the Borough Engineer, Civic Centre, Newport, Mon. Deposit £2 2s., payable to Borough Treasurer, Plans also seen at the office of W. S. Atkins and Partners, consulting engineers, 6 Park Place, Cardiff. Tenders by May 24.

#### ROADS, BRIDGES AND SITE WORKS

ROADS, BRIDGES AND SITE WORKS

\*Abertillery, Mon.—Surface dressing of roads for U.D.C. Tenders by May 29.

Arnold, Not's.—Oxclose housing estate, roads and sewers, for U.D.C., consisting of the laying of approximately 250 lin. yd. of twin foul and surface water sewers, mainly in 9in. concrete tubes; the construction and surfacing of about 3,600 sq. yd. of bituminous carriageway, and the laying of about 1,150 lin. yd. of concrete channels, and channel and kerb foundations, together with other incidental works. Documents from the Surveyor, Surveyor's Office, Arnot Hill House, Arnold. Deposit £2 2s. Tenders by May 29.

Barrow-upon-Soar, Leics.—Re-surfacing of River View, involving the application of tar and granite chippings to approximately 230 yd. of carriageway, for R.D.C. Documents from I. Lilley, engineer and surveyor, 31, Fowke Street, Rothley. Tenders by June 5.

Belfast.—Extension of tarmacadam surfacing and ancillary works, at Donegall Road, playcentre, for City Council. Documents from the City Surveyor's Department (Room 92), City Hall. Belfast, 1. Tenders by May 24.

\*Birmingham.—Inner ring road—section I. Dart III (Holloway Circus) for City Council. Deposit £2 2s. Tenders by May 31.

Blackburn, Lancs.—Heating and planing of approximately 24,000 sq. yd. of carriageway, and the supply and application of bitumen

binder for surface dressing approximately 40,000 sq. yd. of carriageway. Applications to the Borough Engineer, Town Hall, Blackbum, by 10 a.m., May 13.

Blyth, Northumb.—Making up of Parkfield Seaton Sluice, for B.C. Documents from the Borough Engineer, Municipal Buildings, Seaforth, Street, Blyth. Tenders by May 18.

\*Bolton, Lancs.—Street and sewering works for B.C. Tenders by May 25.

Carmarthen.—Excavation of 672 lin. yd. of trench for 4in. water mains in ordinary ground at the Davies estate site, Ystrad, Llanstephan Road, for B.C. Included in this work is the back filling and ramming of the trenches and the removal of surplus spoil. The depth of trench will not exceed 3ft. Tenders in plain sealed envelopes to D. Myrddin Thomas, town clerk, Municipal Buildings. John Street. Cambr d.e.—Huntingdon Road reconstruction of approximately 400 lin. yd. of road, including new footways and kerbs, resurfacing of the carriageway and construction of new laybys. Documents from City Surveyor, The Guildhall, Cambridge. Deposit £2 2s. Tenders by May 24.

\*Cardiff.—Construction of docks access road for City Council. Deposit £5 5s. Tenders by June 7.

Castle Ward, Northumb.—Extending the cartiage and the cartiage and the cartiage for City Council. Postelland, for R.D.C.

Cambridge. Deposit £2 2s. Tenders by May 2t.

"Cardiff.—Construction of docks access road for City Council. Deposit £5 5s. Tenders by June 7.

Castle Ward, Northumb.—Extending the carpark at Thornhill Road, Ponteland, for R.D.C. Documents from G. E. Dimmack, engineer and surveyor, Council Offices, Ponteland, Newcasile upon Tyne. Tenders by May 22.

Clitheroe, Lancs.—Provision of concrete bases for garages on various sites for B.C. Documents from Borough Engineer, Church Street. Clitheroe. Deposit £2. Tenders by May 20.

Colne Valley, Yorks.—Surface dressing an approximate area of 106,000 sq. yd. of road for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Cross Street, Slaithwaite, Huddersfield, on receipt of a stamped addressed envelope. Tenders by May 18.

Colne Valley, Yorks.—External painting of the following properties, for U.D.C.: Contract No. 1, "Langholme." Lewisham Road, Slaithwaite; No. 2, Hillfield Flats, Manchester Road, Slaithwaite; No. 4, playground equipment within the Urban District. Documents from the Engineer and Surveyor, Town Hall, Cross Street, Slaithwaite. Tenders by May 18.

Cookham, Berks.—Making-up and resurfacing of approximately 450 super, yd. of the driveway at the Council offices, for R.D.C. Documents from A. Mandeville, engineer and surveyor, Council Offices, Oaklands, 1 Bath Road, Maidenhead. Deposit £2 2s. Tenders by May 16.

"Coventry.—Road resurfacing programme. 1961-62 for City Council. Deposit £3 3. Tenders by May 29.

"Coventry.—Road resurfacing programme. 1961-62 for City Council. Deposit £3 3. Tenders by June 5.

Croydon, Surrey.—Supply, fixing and maintenance of approximately 1,200 parking meters, for B.C. Applications to the Borough Engineer. Town Hall, Croydon. Tenders by May 19.

Denbighshire. — Making-up Bryn Glas. Rhosllamerchrugog, sections 1 and 2, which is about four miles from Wrexham, for C.C. involving the construction of approximately 1,200 parking meters, for B.C. Applications to the Borough Engineer. Town Hall, Croydon. Tenders by May 19.

Denbigh crusher run stone carriageway foundation, approximately 2,000 lin. yd. of concrete ketb bed, together with appurienant site works. Documents from the drawings inspected by appointment with the Surveyor at the Council Offices. Nether Hall, Doncaster. Tenders by May 26.

May 26.

\*East Riding.—Road works — Welton to North Ferriby By-pass for C.C. Deposit £5. Tenders by June 5.

Epsom and Ewell, Surrey.—Private street works, Cottage Road, West Ewell; Poole Road (part of), West Ewell (from a line between the south-east boundary of 2 Poole Road and the kerb line on the south-east side of Chesterfield Road to Heatherside Road), for B.C. comprising tarmacadam carriageway, tarmacadam footways, kerbing, footway crossings and verge, etc. Documents from, the office of Colin Cobbett. borough engineer and surveyor, Town Hall, Epsom. Deposit £2 2s. Tenders by May 29.

by May 29.
Esher, Surrey.—Farm Road housing estate, completion works, contract 317, for U.D.C. including the following approximate quanti-

ties.: 2,400 sq. yd. cleaning and scarifying existing hardcore carriageways, and surfacing with two course bituminous macadam; 500 lin. yd. of kerbing and channelling; 775 lin. yd. of concrete edging; 1,300 sq. yd. of bituminous macadam footpaths; 4,200 sq. yd. of grass verges; together with miscellaneous ancillary works. Documents from the Engineer and Surveyor, Council Offices, Esher. Deposit £1 ls. Tenders by May 29.

Esher, Surrey.—Littleheath Farm housing estate extension, Oxshott—stage II—roads and sewers—contract 318, for U.D.C., comprising miscellaneous site works, the construction of approximately 1,000 sq. yd. of hardcore carriageways, 130 lin. yd. of 9in. surface water sewer, together with ancillary works. Documents from the Engineer and Surveyor, Council Offices, Esher. Deposit £1 ls. Tenders by May 29.

Esher, Surrey.—Omnibus lay-bys—Portsmouth Road. A.3. Esher and Welling.

Council Offices, Esher, Deposit £1 ls. Tenders by May 29.

Esher, Surrey. — Omnibus lay-bys—Portsmouth Road, A.3, Esher and Walton Road, B.369, East Molesey, contract 320, for U.D.C., comprising the construction of three omnibus lay-bys, each of approximately 100 sq. yd. area, in reinforced concrete, together with kerbing, footpath and other ancillary works. Documents from the Engineer and Surveyor, Council Offices, Esher, Deposit £1 ls. Tenders by May 29.

Fareham, Hants.—Making-up Albert Road for U.D.C. Deposit £2. Tenders by May 25.

"Glamorgan.—Making-up an unnamed street for B.C. Deposit £3. Tenders by May 30.

Glamorgan.—Making-up of the following streets, for C.C.: Heol Stradling (part). Heol Gwrgan (part) and Cae Yorath, Whitchurch, Cardiff, the principal works comprising; storm water sewer 6in. diameter 200 lin. yd.; carriageway, 2,250 sq. yd.; footpath, 1,550 sq. yd.; kerbing, 850 lin. yd.; and incidental works. Documents from the County Surveyor, County Hall, Cardiff. Deposit £3. Tenders by May 30.

"Gloucestershire.—Hartlands Hill improvement, for C.C. Deposit £5.

kerbing, 850 lin. yd.; and incidental works. Documents from the County Surveyor, County Hall, Cardiff. Deposit £3. Tenders by May 30.

"Gloucestershire.—Hartlands Hill improvement, for C.C. Deposit £5, payable to C.C. Tenders by May 29.

Gloucestershire.—Hartlands Hill improvement on Fishguard trunk road, A.48, for C.C. Work includes renewal, widening and part dualling of existing carriageway and ancillary works. Documents from County Surveyor, Ouay Street, Gloucester. Deposit £5, payable to C.C. Tenders by May 29.

Gloucestershire.—Burford-Evesham Road, A.424, improvement from Wyckhill-County boundary, for C.C., including approximately 9,200 yd. of kerbing, using granite setts supplied to site by C.C. Work to be completed in conjunction with a County Council direct labour improvement between the months of June and September, 1961. Documents from the County Surveyor, Quay Street, Gloucester. Tenders by May 25.

"Gosport, Hants.—Reconstruction of omnibus stopping areas for B.C. Deposit £1 Is. Tenders by May 25.

"Hartford, Herts.—Construction of car park for B.C. Apply by May 30.

"Henley-on-Thames, Oxon.—Construction of car park off King's Road for B.C. Deposit £2 2s. Tenders by June 2.

Hebden Royd, Yorks.—Reconstruction of St. George's Street, for U.D.C., including approximately 630 super. yd. of carriageway with concrete foundation and tarmacadam and cold asphalt surfacing, together with new gullies and preparatory works. Documents from the Engineer and Surveyor, Council Offices, Hebden Bridge. Tenders by May 16.

Hertfordshire. — Making-up four private streets, having a total length of approximately 1,950yd., at St. Meryl estate, Carpenders Park, for C.C. The streets have carriageways with bitumen macadam, taking-up and re-laying the existing kerbing, and supplying new kerbing where necessary, and constructing footway crossings. Documents from the County Surveyor's Department, County Hall, Hertford. Tenders by May 31.

Hungerford, Berks.—Reconstruction of estate Toads at the Granthams and Honey Hill.

May 31.

Hungerford, Berks.—Reconstruction of estate roads at the Granthams and Honey Hill. Lambourn, for R.D.C., comprising the laying of some 1,100 super. yd. tarmacadam carriageway, together with footways, concrete garage bases and other ancillary works. Documents from the Surveyor to the Council, The Priory, Hungerford, Deposit £2, cheque payable to R.D.C. Tenders by May 31.

'Keishley, Yorks.—Provision and application of refined tar for B.C. Tenders by May 22.

'Kidderminster. Worcs.—Surface dressing of

\*Kidderminster, Worcs.—Surface dressing of arriageways, for B.C. Deposit £2. Tenders by May 29.

y 29. cashire.—Laying of approximately 682 sq. yd, of macadam paving and erection of approximately 100 kin, yd, of stock-proof post

and wire fencing and 146 lin. yd. of steel rail fencing, at County Police Headquarters, Hutton, near Preston, for C.C. Applications to the County Architect, P.O. Box 26, County Hall, Preston, by May 15.

Leatherhead, Surrey. — Highway improvement works in The Street, Ashstead (A24), including 2,400 sq. yd. bituminous macadam surfacing; 35 in. yd. kerbing; 200 sq. yd. footpath resurfacing, for U.D.C. Documents from the Engineer and Surveyor, Red House, Leatherhead. Tenders by May 19.

Leicestershire.—Reconstruction and widen-

Leatherhead. Tenders by May 19.

Leicestershire.—Reconstruction and widening of route A.444 for a length of approximately 400yd. between Sibson and Atterton, for C.C. Documents from the County Engineer and Surveyor, County Offices, Grey Friars, Leicester. Deposit £5. Tenders by

Friars, Leicester. Deposit £5. Tenders by May 24.

Leicestershire. — Improvement at Peatling Road, Countesthorpe, for C.C. The work consists of road widening, accommodation works, footpath and all ancillary works. Documents from the County Engineer and Surveyor, County Offices, Grey Friars, Leicester. Deposit £5. Tenders by May 24.

Leicestershire. — Improvement at the White Horse Inn, Pickwell, for C.C., consisting of the demolition of the inn and the widening and re-alignment of the road, together with footpath, drainage and all ancillary works. Documents from the County Engineer and Surveyor, County Offices, Grey Friars, Leicester. Deposit £5. Tenders by May 24.

Leicestershire. — Following for C.C.: Bramborough canal bridge on the Measham-Swadlincote Road, B.586, reconstruction of approaches; Measham Lodge canal bridge and Measham, route B.4116, demolition of canal bridge and regrading approaches. Both schemes are included in one contract. Documents from the County Engineer and Surveyor, County Offices, Grey Friars, Leicester. Deposit £5. Tenders by May 24.

Leyton, Essex.—Bituminous macadam resurfacing works, 1961-62, for B.C., comprising the resurfacing of certain classified roads in dense bitumen macadam. Documents from the

surfacing works, 1961-62, for B.C., comprising the resurfacing of certain classified roads in dense bitumen macadam. Documents from the Borough Engineer, Town Hall, Leyton, E.10. Deposit £2 2s. Tenders by May 22.

Lleyn, Caerns

Deposit £2 2s. Tenders by May 22.

Lleyn, Caerns, — Surfacing of roads and footpaths with tarmacadam at Abersoch, for R.D.C. Documents from Clerk of the Council. Metro Buildings, Pwilheli. Deposit £1 1s. Tenders by May 26.

Londonderry.—Supply and laying of hot rolled asphalt, approximate area 26,700 sq. yd. of wearing course, for City Council. Documents from the City Engineer and Surveyov, 5 Guildhall Street, Londonderry. Tenders by May 31.

May 31.

\*Lymington, Hants.—Making-up Daniells and Greenmead Avenue for B.C. Deposit £2 2s. Tenders by June 1.

\*Maidenhead, Berks.—(a) Roads and sewers;

Teymington, Hants.—Making-up Daniells and Greenmead Avenue for B.C. Deposit £2 2s. Tenders by June 1.

"Maidenhead, Berks.—(a) Roads and sewers; (b) construction of running track for B.C. Deposit £2 each. Tenders by May 30.

Manchester. — Hollyhedge Road-Brownley Road housing development, for City Council, including constructing 1,000 sq. yd. bitumen macadam carriageway, 387 lin. yd. 9in. diameter sewer, and ancillary works. Documents from the City Surveyor (Room 208). Town Hall, Manchester, 2. Tenders by May 23.

Middlesex.—London-Fishguard Trunk Road.—Western Avenue Viaduct, Uxbridge, Supplying and laying approximately 18,000 sq. yd. of two course 4in. thick hot rolled asphalt to B.S.594, at the Western Avenue Viaduct at Uxbridge, for C.C. Documents from the Offices of the County Engineer and Surveyor, 20 Vauxhall Bridge Road, S.W.I. Deposit £2 2s. Tenders by May 24.

Mynyddislwyn, Mon.—Construction of a carpark at Maindee Road, Cwmfelinfach, for U.D.C. Including the laying of 352 sq. yd. of carpark surface, 40 cu. yd. of mass concrete retaining wall and other ancillary works. Documents from the Engineer and Surveyor, Council Offices, Pontllanfraith, Blackwood, Mon, Deposit £2 2s. Tenders by May 29.

Newcastle-under-Lyme, Staffs.—Making-up of streets at Knutton for B.C. The works comprise: (1) Audley Street, approximately 870 sq. yd. of carriageway excavation, foundation and two coats macadam, the provision and laying of 265 lin. yd. of new concrete kerb and other ancillary works; (2) Grove Street, approximately 470 sq. yd. of carriageway excavation, foundation and two coats macadam, the provision and laying of 165 lin. yd. of new concrete kerb and other ancillary works; (2) Grove Street, approximately 470 sq. yd. of carriageway excavation, foundation and two coats macadam, the provision and laying of 165 lin. yd. of new concrete kerb and other ancillary works. Documents from the office of the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffs. Tenders by May 22.

Newcastle upon

mittee. Documents from the Office of the City Engineer, Town Hall, Newcastle upon Tyne. Tenders by May 29.

Newcastle upon Tyne.—Repainting of the Tyne Bridge, for Newcastle and Gateshead Bridge Joint Committee. Documents from the Offices of the City Engineer, Town Hall, Newcastle upon Tyne. Tenders by May 29.

Offices of the City Engineer, Town Hall, New-castle upon Tyne. Tenders by May 29.

Newport, Mon.—Following works for B.C.:
(1) Kingsway, supplying and laying 1½in, hot rolled asphalt base course, together with a hot rolled asphalt wearing course—area approximately 3,580 sq. yd.; (2) Marshfield Street and Jenkins Street, scarifying, reshaping and retreading of carriageway—area approximately 3,500 sq. yd.; (3) surface dressing of carriageways, supplying road tar and spraying—area approximately 200,000 sq. yd. Documents from the office of the Borough Engineer, Civic Centre, Newport, Mon. Deposit £2 2s. each, payable to Borough Treasurer. Tenders by May 24.

Northwich, Ches.—Following for R.D.C.:
(1) The construction of approximately 1,800 sq. yd. of tarmacadam roads, 1,120 sq. yd. of flagged paving, 860 lin. yd. of 6in. and 9in. diameter stoneware foul and surface water sewers together with ancillary works in the parish of Barnton; (2) the construction of approximately 570 sq. yd. of tarmacadam roads, 370 sq. yd. of flagged paving, 390 lin. yd. of 6in., 9in. and 12in. diameter stoneware foul and surface water sewers together with ancillary works in the parish of Davenham.

roads, 370 sq. yd., of flagged paving, 390 lin. yd. of 6in., 9in. and 12in. diameter stoneware foul and surface water sewers together with ancillary works in the parish of Davenham. Documents from the Offices of the Engineer and Surveyor. Whitehall, Hartford, Northwich. Deposit £2 2s. each. Tenders by June 1.

Orrell, Lancs.—Flagging/re-flagging County and District Roads, for U.D.C., consisting of taking-up existing kerbs and flagged footways and re-laying new precast concrete kerbs and flags. The approximate quantities are 1,644 lin. yd. of kerb and 3,566 sq. yd. of flagging. Documents from the Engineer and Surveyor, Council Offices, Orrell Post, near Wigan. Tenders by May 31.

Poole, Dorset.—Baiter reclamation scheme—stage 1, for B.C. supply of the following:—Contract B.3.61—filling material, 215,000 cu. yd. (a) the supply of filling material to the site; (b) the excavation and haulage to site of filling materials from locations available to the Council. Total quantity required 215,000 cu. yd. and Tenders will be considered for quantities of 10,000 cu. yd. and upwards. Contract B.4.61.—Hardcore, 2,500 cu. yd.—the supply of stone or brick hardcore for the construction of a temporary bund. Contract B.5.61—Bulldozer—the supply of one Caterpillar D6 bulldozer or similar, in good second-hand condition, machine to be not more than four years old. Documents from the Borough Engineer, Municipal Buildings, Poole, Tenders by May 17.

Rochdale, Lancs.—Following for B.C.: (a) Diversion of Oliver Road. Bochdale, the

by May 17.

Rochdale, Lancs.—Following for B.C.: (a)
Diversion of Oliver Road, Rochdale: (b) construction of surface water sewer, Kingsway
Secondary School. Documents from Borough
Surveyor, Town Hall, Rochdale. Tenders by

May 22.

\*Romford, Essex.—Resurfacing of Broxhill
Road for B.C. Deposit £2 2s. Tenders by

and Cromarty.-Reconstruction Ross Ross and Cromarty.—Reconstruction or Torrandhu Bridge on the Dingwall Ullapool Trunk Road, route A.835, for C.C. Docu-ments from James Arrol, county surveyor, 84 High Street, Dingwall. Deposit £5. Tenders by May 27.

Rushden, Northants.—Improvement of part Rushden, Northants,—Improvement of part of Duck Street and the construction of a car park, for U.D.C. Documents from the Engineer and Surveyor, Council Buildings, Rushden. Tenders by June 2.

"Sale, Ches.—Surface dressing for B.C. Deposit 62 2s. Tenders by May 31.

Deposit 62 2s. Tenders by May 31.

Skipton, Yorks.—Roadworks, Sod Hill, for U.D.C.: (a) extension of Tarn Moor Crescent. consisting of concrete carriageway, 200yd. long, 16ft. wide, and ancillary drainage work; (b) pedestrian footpath linking this road with Grassington Road. Documents from Engineer and Surveyor, Town Hall, Skipton. Tenders by May 22.

and Surveyor, Town Hall, Skipton. Tenders by May 22,

"Southgate, Middx.—Resurfacing of Aldermans Hill, for B.C. Tenders by May 29,

"Southgate, Middx.—Resurfacing and reconstruction of section of Bramley Road for B.C. Tenders by May 29,

"Southgate, Middx.—Provision of wearing course to roads, for B.C. Tenders by May 29,

"Southgate, Middx.—Provision of bitumen macadam wearing course to various roads, for B.C. Tenders by May 29,

"Staffordshire.—Reconstruction of Rugeley No. 3 county bridge, Brook Square, Rugeley for C.C. Tenders by May 29,

"Staffordshire.—Reconstruction and widening of Rugeley-Lichfield Road for C.C. Deposit 25, Tenders by May 31.

Stevenage, Herts.—Modernising and improving pre-war council houses in the Haycroft Road area, for U.D.C.: (1) Contract A, 30

houses—complete modernisation with the conversion of a coal barn and larder into a kitchen, the installation of a hot water supply, the provision of tiled surround fireplace, together with general repair and decorative work; (2) Contract B, 50 houses—improving houses already partly modernised, as Contract houses already partly modernised, as Contract A above, but excluding the conversion of the coal barn and larder into a kitchen. Documents from the Engineer and Surveyor, Orchard Road, Stevenage. Tenders by May 26.

\*Survey.—Road works at Alfold for C.C. Tenders by May 27.

\*Swadlincote, Derbys.—Advance preparation works at Abbots Farm estate for B.C. Deposit £2 2s. Tenders by June 3.

\*Tudaday Janes Surface dressing for

works at ADDOIS Farm estate for B.C. Deposit £2 2s. Tenders by June 3.

\*Tyldesley, Lancs.—Surface dressing for U.D.C. Tenders by May 31.

\*Uxbridge, Middx. — Making-up Colnedale Road for B.C. Tenders by May 29.

\*Uxbridge, Middx. — Reconstruction of Windsor Avenue and Granville Road, contract 480 for B.C. Apply by May 23.

Wakefield, Yorks.—Making-up and paving of 490 lin. yd. of St. John's Mount, Lonsdale Road, for City Council. Documents from the office of the City Engineer, Town Hall, Wakefield. Tenders by May 23.

Wakefield, Yorks.—Making-up and paving of 520 lin. yd. of Woodcock Street, Willow Drive and Oakland Road, for City Council. Documents from the office of the City Engineer. Town Hall, Wakefield. Tenders by May 23.

Ware, Herts.—Private street works at Ware.

gineer. Town Hall, Wakefield. Tenders by May 23.

Ware, Herts.—Private street works at Warner Road, for U.D.C., involving the construction of approximately 1,780 super, yd, of tarmacadam carriageway, together with kerbing, footpaths, drainage, and other ancillary works. Documents from A. G. Davenport, engineer and surveyor. The Priory, Ware. Deposit £2 2s. Tenders by May 24.

West Riding.—Conversion from hand to power operation of Thorne Swing Bridge on the Widmerpool-Howden Trunk Road A.614 in the Rural District of Thorne, for C.C. The contract will include provision for the installation of automatic flashing light signals and power operated lifting barriers in place of the present hinged gates; the application of power operation to the wedge extraction and bridge turning mechanism—at present the bridge is hand operated—and the complete reconstruction at a higher level of the operators' cabin. Documents from the County Engineer and Surveyor, County Hall, Wakefield. Deposit £5., cheques payable to West Riding Treasurer. Tenders by July 3.

\*York.—Making-up of Willow Grove for the City Council. Deposit £2. Tenders by June 12.

### SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Barnoldswick, Lancs. — Additional sludge drying beds at sewage disposal works, for U.D.C. Work includes construction of approximately 2,000 sq. yd. of sludge drying beds comprising concrete foundations, brick walls, and broken stone media, together with the necessary drains and pumping mains. Documents from Charles J. Lomax and Son, 68 Barton Arcade, Manchester, 3. Deposit £3 3s., by cheque payable to Council. Tenders by May 29.

Birmingham.—Minworth New Works. 1961.

by cheque payable to Council. Tenders by May 29.

Birmingham.—Minworth New Works, 1961. Bacteria Beds Block B. Supply and delivery of the following materials for Birmingham Tame and Rea District Drainage Board: (1) concrete pipes—approximately 3,000 lin. yd. of 39in. diameter and 160 lin. yd of 27in. diameter thickwalled concrete pipes, with special pipes, and various standard reinforced concrete pipes; (2) cast iron pipes—approximately 300 tons of spun iron and cast iron pipes varying between 42in. and 4in. diameter; (3) cast iron valves—approximately 32 flanged and socketed sluice vales varying between 21in. and 4in. diameter. Documents from the Engineer to the Board, Rookery Park, Erdington, Birmingham 24. Tenders by May 26.

\*Brierley Hill, Staffs.—Foul and storm water sewers for U.D.C. Deposit £3 3s. Tenders by June 8.

\*Carlisle.—Reconstruction of Willow Holme

"Carlisle.—Reconstruction of Willow Holme sewage disposal works—stage 2 for City Council. Tenders by June 5.

"Chepstow, Mon.—Caldicot sewerage scheme, contract 1, for R.D.C. Application forms returnable by June 5.

Coulsdon and Purley, Surrey.—Construction of 6in. diameter soil sewer—Firs Road, Kenley, for U.D.C. Documents from H. M. Collins, Council Offices, Purley, Deposit £3 3s. Tenders by May 23.

Kerrier, Corn.—Laying of approximately 6,125 lin. yd. of 9in., 6in. and 4in. diameter sewers and rising mains, together with concrete manholes, the construction of two pumping stations and sewage disposal works, and all ancillary works at Constantine, near Falmouth, for R.D.C. Documents from Harvey, McGill and Hayes, consulting civil engineers.

Richmond Road, Exeter, on and after May

8 Richmond Road, Exeter, on and after May 12. Contractors who have not previously carried out work for the Council or under the direction of the engineers, are to submit particulars of similar work executed and the names and addresses of the Engineers concerned. Deposit £5 5s., cheque payable to R.D.C. Tenders by June 7.

Ladybank, Fifes.—Reconstruction of sewage purification works, for B.C. Applications to Crouch and Hogg, consulting engineers, 18 Woodside Crescent, Glasgow, C.3. Deposit £5.

Tenders by June 6.

\*Leatherhead, Surrey.—Surface water drainage work for U.D.C. Tenders by May 26.

Llanelly, Carms.— Extensions to Caernarvon Fawr Farm, Bynea, Sewage Disposal Works, for R.D.C., comprising: (1) two sludge digestion lagoons; (2) five sludge drying beds of 4,200 sq. yd.; (3) 6in, and 4in, cast iron rising mains and pumping station together with manholes and all ancillary works. Documents from the Engineer, Castle Buildings, Llanelly, Deposit £5 5s. Tenders by May 25.

\*Luton, Beds.—Drainage works at Luton Air-

Buildings, Llanelly. Deposit £5 5s. Tenders by May 25.

\*Luton, Beds.—Drainage works at Luton Airport for B.C. Deposit £2 2s. Tenders by May 25.

\*Middlessex.—East Middlessex main drainage, contract E.M.S. 12, for C.C. Deposit £10 10s. Tenders by June 19.

Mynyddislwyn, Mon.—Laying of approximately 871 lin. yd. of foul sewers (diameters varying from 6in. to 18in.), together with the construction of manholes, stilling pond overflow and other ancillary works at Springfield. Pontlanfraith, for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Pontlanfraith, Blackwood, Mon. Deposit £3 3s. Tenders by June 5.

Newport, Mon.—Bettws Neigbourhood Unit, flood prevention scheme, for B.C. Work

flood prevention scheme, for B.C. Work includes retraining works, construction of balancing reservoir (approximately nine acres), with pitched earth banks and weirs, erection of flood control gate, reinforced concrete road bridge, prestressed contracts coethicides and

includes retraining works, construction of balancing reservoir (approximately nine acres), with pitched earth banks and weirs, erection of flood control gate, reinforced concrete road bridge, prestressed concrete footbridge and ancillary works. Documents from Borough Engineer, Civic Centre, Newport, Mon., on production of Borough Treasurer's receipt for £2 2s. deposit. Tenders by May 24.

\*Nidderdale, Yorks.—Knapton and District sewerage scheme for R.D.C. Deposit £4 4s. Tenders by June 20.

\*Peterborough.—Supply and delivery of: 55 lin. yd., 36in. diameter spun concrete tubes (granite aggregate), reinforced and having ogeo joints, for C.C. Applications to the County Surveyor, County Council Offices, Bridge Street. Peterborough. Tenders by May 23.

\*Poulton-le-Fylde, Lancs.—Carleton relief sewer, contract 9, for U.D.C., including the laying of the following: 1,626ft. 33in. diameter specially strengthened concrete pipe sewers; 2,260ft. 30in. diameter ditto; 1,338ft. 24in. diameter ditto; 209ft. 18in. diameter ditto; 363ft. 15in. diameter ditto. together with the construction of manholes and other ancillary works thereon, and the construction of two inverted siphons under existing watercourses in 3in. and 9in diameter spun- and cast-iron pipes. Documents from the Engineer and Surveyor, Town Hall, Poulton-le-Fylde. Deposit £2 2s. Tenders by June 8.

\*Rochester, Kent.—Pattens gardens/city way foul relief sewer, etc., for City Council. Deposit £2 2s. Tenders by June 6.

\*Rayleigh, Essex.—Eastern sewage disposal works, contract 2 for U.D.C. Deposit £5 5s. Tenders by June 12.

Sale, Ches.—Surface water drainage and reconstruction of Old Hall Road (part) and Wardle Road, total length approximately 1,230 lin. yd., for B.C. Documents from the Office of R. Thirliway, borough engineer and Surveyor, Council Offices, Ewell Road, Surbiton, Surrey.—Demolition and removal of steam raising plant at disposal works, Lower Marsh Lane, for B.C. Documents from the Office of R. Thirliway, borough engineer and surveyor, Council Offices,

May 30.

Tottenham, Middx.—Stonebridge Brook improvement, contract 6, for B.C., including the construction of a surface water sewer, of which approximately 300 lin, yd. are in twin 40in. diameter cast-iron pipes, 185 lin, yd. are in 48in. diameter concrete pipes, and about 70 lin, yd. in 36in, and 30in. diameter concrete pipes, together with 12 manholes in brick and

in concrete. The sewer is located in Seven Sisters Road, on Railway property off Seven Sisters Road, in Templeton, Hermitage and Ashfield Roads, and in the grounds of Harringay Stadium. Documents from J. D. and D. M. Watson, consulting engineers, 67 Tufton Street, Westminster, S.W.I. Deposit £10 los. cheque. Tenders by June 16.

\*Warminster, Wilts.—Sewage disposal works tension, for U.D.C. Deposit £5. Tenders

\*Warminster, Wilts.—Sewage disposal works extension, for U.D.C. Deposit £3. Tenders by June 16.

Wednesbury, Staffs.—Extension of a foul sewer at Darlaston Road, for B.C. The work comprises the laying of approximately 704yd of 12in. diameter pipe and 564yd. of 9in. diameter pipe, together with the construction of 15 manholes and a storm water overflow and various ancillary works. Documents from the office of the Borough Engineer and Surveyor, Town Hall, Wednesbury. Deposit £3 3s. cheque payable to Corporation. Tenders by May 29.

Wem, Salop.—Laying of 85yd, of 6in.

cheque payable to Corporation. Tenders by May 29.

Wem, Salop.—Laying of 85yd. of 6in. S.G.W. sewer pipes, with incidental works at Tilley Road, for U.D.C. Documents from C. H. Jeffrey, surveyor, Council Offices, Wem. Tenders by May 22.

Wokingham, Berks.—Main drainage of Shinfield—stage III. School Green and Three Mile Cross areas, for R.D.C., including the following: (a) the laying of 5,100 lin, yd. of 6in. and 7in, diameter salt glazed ware pipes and 1,025 lin, yd. of 12in. diameter spuniron pipes; or, alternatively, 5,100 lin, yd. of 6in. and 8in. diameter pitch-fibre pipes and (b) the construction of 90 manholes, two pumping stations and rising mains. Documents from the Chief Engineer, Council Offices, Shute End, Wokingham. Deposit £3 3s. Tenders by May 25.

#### STREET LIGHTING

Chigwell, Essex.—142 group A lighting units, conversion and improvement scheme, for U.D.C., including, supply and erection of Concrete Utilities columns. Eleco lanterns and Venner time switches. Documents for the Engineer and Surveyor, Council Offices, Old Station Road, Loughton, Deposit £2 2s. Tenders by May 19.

Eastleigh, Hants.—Supply and erection of approximately 78 units of 140-watt sodium street lighting to Group A standard, and 267 units of 60-watt sodium street lighting to Group B standard, for B.C. Documents from Borough Engineer and Surveyor, Town Hall Eastleigh. Deposit £2 2s. Tenders by May 24.

\*Lewisham.—Street lighting for B.C. Tenders by May 25.

by May 25. Reigate, Surrey.—Supply and erection of 19 group A steel lighting columns and ancillary equipment, in conjunction with a road widening scheme, for B.C. Applications to Borough Surveyor, Town Hall, Reigate. Tenders by May 20.

May 20.

\*St. Albans, Herts.—Group A concrete columns for City Council. Tenders by June l. Surrey.—Installing a 400-Watt mercury fluorescent discharge lighting system at The Glanty roundabout, Egham, for C.C., Comprising 18 steel tubular columns and 22 lasterns. Documents from County Engineer. County Hall, Kingston-upon-Thames, Tenders by May 27.

#### INTERNATIONAL CONTRACTS

— New development area—Sheikh Contract 3—village No. 1 sewerage Government of Aden. Deposit £10. Aden. -

\*Aden. — New development area—Sheikh Othman. Contract 3—village No. 1 sewerase for the Government of Aden. Deposit £10. Iraq.—First phase of the University of Baghdad consisting generally of the following items for Ministry of Works and Housing: (1) Main entrance including gate house, entrance arch and all services; (2) faculty tower consisting of 19 storeys of offices including all services, equipment and air conditioning: (3) main roads servicing university site; (4) earth dike along riverbank for site flood protection; (5) general rough grading. Contractors should have had previous experience in the execution of works of a similar nature and magnitude and only such contractors should apply for the documents. Documents and drawings may be inspected and purchased at the following offices: Directorate General of Buildings, Technical Division No. 4, Southgate, Baghdad, Iraq; The Architects Collaborative International, Ltd., c/o Panero-Weidlings-Salvadore, S.A., 126 Via Nomentana, Rome. Italy; Embassy of the Republic of Iraq, 21 Queen's Gate, London, S.W.7. The price of a complete set of documents (two copies contract conditions, specifications and bill of quantities and one copy of drawings and details) is 1D. 70 (Seventy Iraqi Dinars) approximately £70, which is not refundable. Tenders by Aug. 1 to Iraq.

#### AWARDS

#### BUILDING AND DECORATING (See also Housing Schemes)

(See also Housing Schemes)

Alperton, Middx. — Girls' Secondary Modern School in Laingspan construction at Ealing Road for C.C.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

Alveley, Salop. — First stage of repair work to roof of Parish Church. A. Sanford, architect, Quatford, Eridgnorth—H. Will-cock and Co., Ltd., Darlington Street, Wolverhampton. Estimated cost £2,000. Work just commenced.

Barking, Essex.—Following for B.C.: Erection of a classroom block at Eastbury Secondary School—Clemens Bros., Ltd., 77 Derby Road, London, E.7, £35,187; alterations at Roding and St. Teresa Primary Schools—Direct Labour, £11,999 and £4,689, respectively.

Schools—Direct Ladour, 211,797 and 21,007, respectively.

Basingstoke, Hants. — Reorganisation of the Corporation depot, phase 2, for B.C.: Supply and erection of the precast concrete framework and roofing for the plant store—Crendon Concrete Co., Ltd., Long Crendon, Aylesbury, Bucks., £1,787; completion of office block—Direct Labour, £3,130 (recom-

Aylesbury, Bucks., £1,787; completion of office block—Direct Labour, £3,130 (recommended).

Battersea.—Erection of a five-storey office block, a three-storey block of eight flats and a three-storey block of 16 flats at 207-217 Lavender Hill for B.C.—Direct Labour, £204.000 (recommended).

Billingham-on-Tees, Dur.—Following tenders for proposed workshop extensions for the Furness Shipbuilding Co., Ltd., Haverton Hill. T. F. Burns and Partners, consulting engineers, Ellison Place, Newcastle upon Tyne; Pling and Co., Ltd., Pandon Building, City Road, Newcastle upon Tyne; floors, drains and machine founds—Demolition and Construction Co., Ltd., London; steelwork—Findlay and Co., Ltd., Motherwell; sheeting—Manchester Slate Co.; glazing—British Patent Glazing Co.; and roof decking—Robertson Thain, Ltd.

Construction of elevated car park in the town centre for LLDC.

Thain, Ltd.

Construction of elevated car park in the town centre for U.D.C. Cussons and Partners, consulting structural engineers, Dasteel House, Borough Road, Middlesbrough—Brims and Co., Ltd., Pandon Buildings, City Road, Newcastle upon Tyne, 153 000

£35,000.
Blackburn, Lancs,—Rebuilding of the Water-loo Hotel, Penny Street, for Daniel Thwaites and Co., Ltd.—H, Ibbotson and Son, Ltd., Mincing Lane, Blackburn. E. A. Hirst, staff architect, and E. Walmsley and Co., quantity surveyors, 30 Burnley Road, Padiham. Work about to commence.
Bandford, Dorset, Pagings, to houses in

Work about to commence.

Blandford, Dorset.—Repairs to houses in Alfred Street for B.C.—H. MacNally and Son, 57 Salisbury Street, Blandford, £3,140 (recommended); R. J. Gristwood, £3,192; E. E. Boughton, Ltd., £3,226

Blaydon-on-Tyne, Dur.—Erection of nursery school at Winlaton Mill for C.C. G. W. Gelson, county architect—R. C. Williamson (Durham), Ltd., Rowlands Gill, Co. Durham, £14,830.

514,830.

oston, Lines,—Erection of an old age pensioners' hall off Silver Street. Tomlinson and Partners, architects, South Street—S. Blackham and Son, Willoughby Road, Boston. Work about to commence.

Boston. Work about to commence.
Bradford, Yorks.—Following for City Council:
Following work at the Shearbridge depot—
piling contract A—Cementation Co., Ltd.,
Doncaster, £2,160; reinforced concrete
foundation work, contract B—R. H.
Fullwood and Co., Ltd., near Pontefract,
£2,595; structural steelwork, contract C—
Ward Bros. (Sherwood), Ltd., Malton,
Yorks., £13,939.
Construction of a new entrance at the
Queen's Hall—J. Totty and Sons, Ltd., 3-9
Stanacre Place, Bradford, 3, £7,100 (all
recommended).

Stanacre Place, Bradford, 3, £7,100 (all recommended).
Bristol.—Erection of an office block to be known as Norwich Union House at corner of High Street and Bristol Street (Wine Street area) for the Norwich Union Insurance Societies. K. Wakeford, Jerram and Harris, architects, 3 Upper Berkeley Place, Bristol. 8—W. Cowlin and Son, Ltd., Stratton Street, Bristol. Preliminary work about to commence.

about to commence.

ristol.—Construction of workshop and offices at Brislington for Bristol Industries.

Ltd.—J. Laing and Son, Ltd., Mill Hill.

London, N.W.7.

London, N.W.7.

Caernarvonshire.—Following for C.C. A. L. Williams, county archivect: Site works and erection of a prefabricated Medway class room hut at Llangelynin V.C. School, Henrhyd, and the conversion of one classroom in existing school into a school meals kitchen—W. W. Jackson, 22 Min-y-Ddol, Maesgeirchen, Bangor, £3,511; detached

two-classroom, etc., extensions at the Caernarvonshire Technical College, Bangor —Watkin Jones and Son, Ltd., 16/22 Mount Street, Bangor, £8,274.

Consett, Dur.—Provision of nursery accommodation at Richard Murray Hospital, Newcastle upon Tyne Street, Bangor, £8,274.

Consett, Dur.—Provision of nursery accommodation at Richard Murray Hospital, Blackhill, for Newcastle upon Tyne Regional Hospital Board—Henry Ayton and Sons, Ltd., 5 George Street, Blackhill, Consett, £18,997. Fennell and Baddiley. architects, Bridge End Chambers, Chesterle-Street, and Thos. Barrett, Sons and Partners, 33 High Bridge, Newcastle upon Tyne, 1, are the quantity surveyors

Corby, Northants.—Construction of an eightstory steelworks administration block and four-storey tubeworks at Corby for Stewarts and Lloyds, Ltd.—J. Laing and Son, Ltd., Mill Hill, London, N.W.7.

Coventry.—Erection of an old people's home at Quinton Park for City Council—D. Lynch, 362 Stoney Stanton Road, Coventry, £49,96.

Darlington, Dur.— Erection of pathology laboratory and out-patient department at Memorial Hospital for Newcastle Regional Hospital Board—Walter Thompson (Contractors), Ltd., Northallerton, £59,942.

P. H. Knighton, architect to the Board, and Thos. Barrett, Sons and Partners, 84 Grange Road, Middlesbrough, are the quantity surveyors.

H. Kn. H. Kn. I Thos. Bar. Road, urvey

and Thos. Date:

Grange Road, Middlesbrougn, quantity surveyors.

Daventry, Northants.—Removal of combination grates and the installation of tiled surround fireplaces in 24 houses at Weedon Bec, Flore and Farthingstone, and 28 at Newnham, Charwelton, Byfield, Woodfordcum-Membris, and Preston Capes for R.D.C.—R. E. Lewis (Builders), Ltd., Northampton, £816, and Adkins and Cooper, Ltd., Staverton, £986 (recommended).

Northampton, £816, and Adkins and Cooper, Ltd., Staverton, £986 (recommended).

Dukinfield, Ches.—Painting of 116 houses, contract 1, 104, contract 2, and 84, contract 3, for B.C.—Contracts 1 and 2—Wrights, 101 Manchester Road, Manchester; contract 3—E. Mellor, 95 Victoria Street, Newton, Hyde (recommended).

Dungannon, Tyrone.—Erection and completion of an underground public convenience and bus shelter in the Square, Moy, for R.D.C.—McGrath and Co. (Coalisland), Ltd., Dungannon, £3,823 (recommended); Donnelly Connolly and Fee, £3,968; H. and D. Gray, £4,020; A. C. Simpson, £4,067; D. Carolan and Sons, £4,477; H. Coary, £4,920.

Gray, £4,020; A. C. Simpson, £4,067; D. Carolan and Sons, £4,477; H. Coary, £4,920.

Ealing, Middx. — Boys' Secondary Modern School in Laingspan construction at Almond Avenue for C.C.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

Feltham, Middx.—Construction of precast concrete frame for Hanworth Grammar School at Uxbridge Road for C.C. Whitfield Lewis, county architect—The Modular Concrete Co., Ltd., 1258-1260 London Road, London, S.W.16, £48,025. Work commencing in July.

Folkestone, Kent.—Provision of rear entrance doors for stage II of the modernisation of 99 houses at Dallas Brett Crescent for B.C.—Pemico Products, Ltd., Tudor Road, Folkestone, £778 (recommended, subject to Ministry approval).

Gateshead, Dur.—Erection of wholesale branch on the Kingsway South Team Valley Trading Estate for Kodak, Ltd.—John Laing and Son, Ltd., Dalston Road, Carlisle.

Glasgow.—Erection of shops and offices with

branch on the Kingsway South Team Valley Trading Estate for Kodak, Ltd.— John Laing and Son, Ltd., Dalston Road, Carlisle.

Glasgow.—Erection of shops and offices with underground garage at Sauchiehall Street for Gula Investments, 25 Upper Brook Street, London, W.I.—Tersons, Ltd., 4 Dollis Park, London, N.3, £200,000. Arthur Swift and Partners, 91 George Street, Edinburgh, 2, are the architects, and A. E. Thornton, Firkin and Partners, 17 Fitzhardinge Street, London, W.I., are the quantity surveyors.

Erection of multi-storey offices and shops at Cambridge Street for Commercial and General Investment (Scotland), Ltd.—Tersons, Ltd., 4 Dollis Park, London, N.3, Estimated cost £500,000. Robert F. Bluck and Drummond and Associates, 169 Elderslie Street, Sauchiehall Street, Glasgow, C.3, are the architects, and C. R. Wheeler and Partners, 70 Victoria Street, London, W.1, are the quantity surveyors. Gloucestershire.—Construction of district survey laboratories at Berkeley for Central Electricity Generating Board—J. Laing and Son, Ltd., Mill Hill, London, N.W.7.

Hammersmith.—Extensions to Cadby Hall, London, W.14, for J. Lyons and Co., Ltd.—

N.W.7.

Hammersmith. — Extensions to Cadby Hall, London, W.14, for J. Lyons and Co., Ltd.— Truscon, Ltd., 35 Lower Marsh, London, S.E.I. Estimated cost £300,000.

Harlow, Essex.—Construction of a laboratory block at Revertex, Ltd., Temple Fields, for Development Corporation—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

Heywood, Lanes.—Erection of primary school—D. L. Grimshaw, Ltd., Rawtenstall.

Peter R. Nuttall, architect, Westwood Chambers, 5 Kay Street, Rawtenstall, Rossendale, and B. D. Etchells, quantity surveyor, Oxford Road, Manchester.

surveyor, Oxford Road, Manchester.

Illeston, Derbys.—External painting of 90 dwellings at Cotmanhay estate, contract B, for B.C.—Robinson (Decorators Mansfield), Ltd., Clumber Street, Mansfield, £1,215, Idrow, Dur. — Adaptation to Danesheld Maternity Hospital and adjoining Laurel Bank, for Newcastle upon Tyne Regional, Grantham Road, Sunderland, £2,109, Fennell and Baddilley, architects, Bridge End Chambers. Chester-le-Street, and Thos. Barrett, Son and Partners, 33 High Bridge, Newcastle upon Tyne, 1, are the quantity surveyors.

Leeds.—Following for City Council; Alterations and additions to Gipton Police Station, including the erection of a garage—Geo. Monkman and Son, Ltd., Nowell Lane, Leeds, 9, £13,166 (recommended, subject to Home Office approva).

Alterations to a mistal and dairy and removal of a pump-house at Grove Farm on the Eccup estate—I, Bielby, Westfields, Thorner, Leeds, £866; demolition of brick chimney and erection of steel chimney at Kirkstall Road Works—Clayton-Chambers, Ltd., 100 Geldard Road, Leeds, 12, £3,076.

Erection of the East Leeds Hostel for Witch, Aberford Leeds 424, 514.

Leicester.—Following for City Council: Erection of an additional shop at Thurnby Lodge estate shopping centre—Walter December of Contract).

Phase II of the Lancaster Boys' School—A. A. Stuart and Sons (Glasgow), Ltd. 2275 London Road, Carmyle, Glasgow, E. J. £2,438.

Lewisham.—Erection of a public shelter with male and female conveniences at Hither Green Cemetery for B.C.—Walter Gladding and Co., Ltd., 14 Davenant Street, London, E. J. £2,640 (recommended).

Leyton, Essex.—Following for Sc.: Painting at County High School for Boys and Downsell Primary School—E. W. Clare and Co., Ltd., 47 Davenant Street, London, E. J. £2,540 (recommended).

Leyton, Essex.—Following for City Council Repairs, decorations and conversion of first floor accommodation into self-contained flat to 2 Press of School of approximately 1,200 sq. ft. floor area—H. Kinch, 158 Gilbey Road, Grimsby, £4,631. Work commenced.

Liverpool.—Follow

London. — Following for City of London Corporation: Redecorations and repairs at Meat Inspector's Office, 79-81 Charterhouse Street—Ashford and Moll, Ltd., 38 St. John Street, London, E.C.1, £1,389 (recommended); Chas. S. Foster and Sons, Ltd., £1,572; Heeps Willard and Co., Ltd., £1,696; Holbrook (Builders), Ltd., £1,797; Killby and Gayford, Ltd., £1,827; Anderson and Brown (Bishopsgate), Ltd., £1,922; alterations and improvements to cells section, additional lavatory accommodation for police and cleaning and redecoration works at Central Criminal Court—Ashby and Horner, Ltd., 69 Bishopsgate, London, E.C.2, £5,574 (recommended).

Long Ashton, Som.—Improvements to 44 houses at Pill for R.D.C.—S. Colburn and Son, Hope Yard, High Street, Portishead, £20,138 (accepted); Day and Hobden, Ltd., £21,336; W. H. Turner and Co., £25,245; A. Billings and Co., £22,086; I. M. Pegler, £26,369.

Luton, Beds.—Following for B.C.: Construction of central vehicle repair and maintenance depot and general garage at Portland Road/Kingsway—H. C. Janes, Ltd., 183 High Town Road, Luton, £224,810; erection and equipment of public slaughterhouse at Toddington Road—A. Monk and Co., Ltd., 75 Victoria Street, London, S.W.I., £63,766 (recommended, subject to Ministry approval).

£63,766 (recommended, subject to Ministry approval).

Renovation of hangar 9 at the Airport—Industrial Building and Maintenance, Ltd., 51 Queens Road, Reading, £9,776.

Erection of Meads Infants' School—Davies and Rentowl, Ltd., 1022 Victoria Street, St. Albans, Herts., £53,620; supply of fixtures and fittings at the Central Library—Harris and Sheldon, Ltd., 46 Great Marlborough Street, London, W.I, £19,924 (recommended).

Provision of temporary terminal building

sion of temporary terminal building Airport—Direct Labour (recom-

Provision of temporary terminal data the Airport—Direct Labour (recommended).

Maidenhead, Berks. — Sub-contracts for the Town Hall for B.C.: Balustrades to staircases (1)—Culford Art Metal Co., 283 Kingsland Road, London, E.2, £2,996; (2 and 3)—Safety Tread, Ltd., Dace Road, London, E.3, £409 and £275, respectively; treatment of collecting hall—Samuel Elliott and Sons (Reading), Ltd., Caversham, Reading, £2,300 (recommended).

Maidstone, Kent.—Clearance and drainage of site and the erection of structural frame for the Central Library for B.C.—Truscon, Ltd., 35-41 Lower, Marsh, London, S.E.1, £32,870 (recommended).

Maltby, Yorks.—Painting of 66 houses

London, S.L... Yorks. London, S.E.I., £32,870 (recommended).

laltby, Yorks. — Painting of 66 houses
situated at Cliff Hills estate, off Rotherham
Road, for U.D.C. A. Dobson, 1 Dodsworth Street, Mexborough, £650 (accepted);
W. Jones, £750; R. Jefferson, £750; O. V.

Broome, £1,650. Work commencing
Lune.

June.

Manchester.—Following for City Council: Subcontractors for erection of Hayhead View
old people's home—ironwork—Duxbury
Hartley and Co., Ltd., Salford; roof tiling— Manchester Slate Co., Ltd., Salford; roof tiling—Manchester Slate Co., Ltd.; plumbing and glazing—J. Nightingale and Co., Ltd., Manchester; tarmacadam—Apex Asphalters. Ltd., Stockport; wall tiling—Ashcrofts (Wall and Floor Tilers), Ltd., Manchester; plastering—W. A. Telling, Ltd., Manchester; painting—A. Lord and Son (Rochdale), Ltd.; waterproofing—Sika (Northern), Ltd., Liverpool; cork tiles and linoleum—Robert Kerr and Son (Floorings), Ltd., Manchester. Erection of infants' wing (in proprietary form of timber construction) at the Broad Oak Primary School—G. and J. Seddon, Ltd., Little Hulton; provision of new toilets to bowls pavilion at Platt Fields Park—Direct Labour; provision of greenhouse and erection of new palm house at Alexandra Park—R. Halliday and Co., Ltd., Middleton, and V. and N. Hartley, Ltd., Greenfield, Oldham, Lancs., respectively (all recommended).

and V. and N. Hartley, Ltd., Greenfield, Oldham, Lancs., respectively (all recommended).

Mickleover, Derbys. — Nurse training school at the Pastures Hospital for Sheffield Regional Hospital Board—Vic Hallam (Contractors), Ltd., Langley Mill, Nottingham, £23,799 (recommended).

Newhaven, Sussex.—External painting of 118 properties for U.D.C. A. E. Motyer, engineer and surveyor—Groups (a), (b) and (c) — Architectural Decorators, Ltd., 79 Eccleston Square, S.W.1, £710, £588 and £340, respectively; and group (d) J. G. Smith, Marshall Lane, Newhaven, £184. Work about to commence.

Nottingham.—Patients' lounge, staff dining accommodation, cafeteria and nurses' restroom at Mapperley Hospital for Sheffield Regional Hospital Board—John Cawley, Ltd., Nottingham, £23,274 (recommended).

Nottingham.—Construction of halls of residence (3 and 5) at University Park for the University—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

Oswestry, Salop.—External repainting of houses at St. Martins, Moors Bank (46); St. Martins, New Ifton (10); Western Rhyn, Palmantmawr (42); Weston, The Meads (24) for R.D.C. J. W. Phillips, engineer and surveyor—E. J. Crowe, 62 Bron-y-waen, Chirk, near Wrexham, £1,377 (accepted); F. R. M. Taylor, £1,408; W. D. Ward, £1,477; E. F. Kunze, £1,836. Work commencing July 1.

Kunze, £1,836. Work commencing July 1. Pewsey, Wilts.—Erection of nine garages and site works at George VI Road, North Tidworth, for R.D.C. — Direct Labour, £1,079 (subject to Ministry approval). Plymouth, Devon.—Following for City Council: Four shops and four flats at Hornchurch Road, Ernesettle—A. N. Coles (Contractors), Ltd., Sutton Road, Plymouth, £20,950; erection of a factory at Whitleigh (to be occupied by C. and J. Clark, Ltd.)—Dudley Coles, Ltd., Bath Street, Plymouth, £128,840 (recommended, subject to Ministry approval).

E128,840 (recommended, subject to ministry approval).

Pomeroy, Tyrone.—Construction of R.U.C. Standard Sub-district Station at Main Street for the Ministry of Finance—P. O'Neill and Co., Cannonhill, Omagh.

Portsmouth.—Improvements at St. Mary's House for the Welfare Services Committee—John Lay and Co. (Portsmouth), Ltd., 207 Arundel Street, Portsmouth, £48,988 (recommended).

—John Lay and Co. (Portsmoutn), Lto., 20, Arundel Street, Portsmouth, £48,988 (recommended).

leading, Berks.—Following for B.C.: External painting of Council dwellings in nine contracts—(1) 144 houses at Whitley housing estate; (7) 60 flats at Elizabeth House; (3) 66 houses at Whitley housing estate—R. Merrick Burrell and Partners, Shinfield, Reading, £2,376, £1,195 and £970, respectively; (2) 118 houses at Whitley housing estate; (8) 40 houses at St. Michael's housing estate—Fields (Reading), Ltd., 248 Kings Road, Reading, £1,936 and £524, respectively; (4) 75 prefabricated bungalows; (6) 128 houses at Whitley housing estate; and (9) 10 bungalows and houses at Parkhurst—D. R. Norris, 19 Westcote Road, Reading, £550, £1,741 and £123, respectively; (5) 141 houses at Southcote housing estate—Hancock and Rees, £2,044 (recommended).

mended).

Installation of shop fronts at shops at Coley Park housing estate—R. M. Connolly, 335 The Meadway, Tilehurst, Reading, £1,890 (recommended, subject to Ministry approval).

Repainting of street lamps and traffic signs, etc., in the Central, Katesgrove and Whitley areas—Direct Labour, £1,250 (recommended).

Whitey areas—Direct Labour, £1,250
Ripley, Derbys.—New out-patient department and clinic accommodation at Ripley Hospital for Sheffield Regional Hospital Board—H. Hunt and Sons (Builders), Ltd., Ripley, £29,937 (recommended).

Rochester, Kent. —Following for administrative block comprising phase I of the erection of an indoor sports stadium at Buckmore Park for the Medway West District Association. Derek Buckler and Partners, architects, Id Manor Road, Chatham: excavation work — Wallis (Chatham: excavation work — Wallis (Chatham: excavation work — Wallis (Chatham: Canal Road, Strood; reinforced concrete frame—Helical Bar and Engineering Co., Ltd., 82 Victoria Street, London, S.W.l. Work has just commenced.

St. Albans, Herts.—Reconstruction of the front wall of the Marlborough Buildings, in connection with improvements at Hatfield Road, for City Council—A. H. Nicholls and Sons, Ltd., £911 (recommended).

Scunthorpe, Lincs.—Garage block for resident staff at Scunthorpe and District War Memorial Hospital for Sheffield Regional Hospital Board—F. J. Brown, Ltd., Scunthorpe, £1,946 (recommended).

Seaham, Dur.—Erection of Seaham Grammar Technical School for C.C.—J. Huntley and

Hospital Board — F. J. Brown, Ltd., Scunthorpe, £1,946 (recommended).

Seaham, Dur.—Erection of Seaham Grammar Technical School for C.C.—J. Huntley and Son. Ltd., Marion Street, Sunderland, £328,489. Newrick and Blackbell, architects, 58 John Street, Sunderland; Martin and Felton, quantity surveyors, Lloyds Bank Chambers, Fawcett Street, Sunderland; and R. W. Gregory and Partners, Pilgrim House, Pilgrim Street, Newcastle upon Tyne, consulting engineers.

Sheffield.—Following for City Council: Erection of public conveniences at Beverley Street, Attercliffe—Wilson and Middleton, 101 Leigh Street, Sheffield, 9, £2,281; erection of new City Grammar School—G. Longden and Son, Ltd., St. Peters Close, Sheffield, 1, £299,752 (both recommended). Steelwork for extensions and adaptations at High Storrs Grammar Schools—T. W. Ward, Ltd., Albion Works, Saville Street, Sheffield, —Additional builder's work at City General/Fir Vale Infirmary for Regional Hospital Board—Frederick Ridal and Sons (Builders), Ltd., Sheffield, £3,693 (recommended).

(recommended).

Smethwick, Staffs.—Erection of a factory at Oldbury Street for the United Spring Co. Ltd.—Sir Alfred McAlpine and Son, Ltd., 49 Waterloo Road, Wolverhampton. Estimated cost £150,000. J. Rendle, architect. 1 Leicester Street, Walsall, and Collins and Britton, quantity surveyors, 39 Bennetts Hill, Birmingham, 2. Work about to commence. to commence

Smethwick, Staffs,—Remodelling of the Cape Infants' School for B.C.—L. Walton (Builders), Ltd., Old Walsall Road, Birming-ham, 2, £10,597 (recommended).

South Shields, Dur.—Erection of canteen in Commercial Road for S. Newman, Ltd Jack Cotton, Ballard and Blow, architects 48 Pilgrim Street, Newcastle upon Tyne-John Cummings, Matamba Terrace, Sunder-

John Cummings, Matanea land.

Alterations to St. Mary's C. of E. Junior Mixed School. J. H. Morton and Sou, architects, Martins Bank Chambers, Fowler Street, South Shields—R. Brown and Son, Ltd., 24 Lord Street, South Shields, £21,989 Southwark.—Erection of 60 precast concrete garages at 9-45 Boundary Lane for B.C.—Greenaway and Son, Ltd., 265 Lordship Lane, London, S.E.22, £11,950 (recommended).

Lane, London, S.E.22, £11,950 (recommended).

Spalding, Lines. — Erection of a Roman Catholic primary school at Pennygate for the Nottingham Diocesan Commission for R.C. Schools—Foster and Sons, Grantham, £18,181.

R.C. Schools—roster and Sons, Grantham, £18,181.

Stockport, Ches.—Following for B.C.: Structural steel for the Heaton Lane ambulance depot—B.D. Steel Structures, Ltd., Derby, £2,469; erection of Portwood Nursery School—W. Turner (1946), Ltd., 4 Oat Street, Stockport, £21,675; structural steelwork, steel reinforcement and precast concrete for St. Anne's R.C. School—John Booth and Sons (Bolton), Ltd., Hulton Steelworks, Bolton, £1,139, G.K.N. Reinforcement, Ltd., 7 Oxford Road, Manchester, 1, £3,172, and Pierhead, Ltd., The Boulevard, Liverpool, 24, £6,116, respectively.

Stoke-on-Trent, Staffs.—Following for City Council: Structural steelwork for shop and offices at Stafford Street/Tontine Street, Hanley—Clark's Steel Construction, Ltd., Stoke-on-Trent, £6.127 (recommended)

Repairs and improvements at the public abattoir, Hanley—Direct Labour (recommended). Estimated cost £11,900.

mended). Estimated cost £11,900.

Sunderland, Dur. — First phase of factory at North Hylton Road for Hepworth and Grandage, Ltd., Bradford — Main contractors — George Wimpey and Co. Ltd.: electrical installation — N. G. North Hylton Road for Hepworth and Grandage, Ltd., Bradford — Main contractors — George Wimpey and Co. Ltd.; electrical installation — N. G. Bailey and Co., Ltd., Heathcote, Ilkley steelwork — Modern Engineering (Bristol. Ltd., Emery Works, Emery Road, Bristol. The architects are Newick and Blackbell, 58 John Street, Sunderland, and quantity surveyors are Hall and Stafford, Sunniside Chambers, West Sunniside, Sunderland.

and quantity surveyors are Hall and Starford, Sunniside Chambers, West Sunniside, Sunderland.

Sunderland, Dur.—Erection of new depot at
East Hendon Road, for T. Wall and Sons
(Ice 'Cream), Ltd. William Broadbent.
Thompson and Wilson, architects, Hillary
Chambers, Hillary Place, Leeds, 2—Lesie
and Co., Ltd., 80 Woodland Road, Darlington. Work will start about mid-june.

Sutton and Cheam, Surrey.—Following for
B.C.: Construction of the first stage of
the bowls pavilion at Rose Hill Recreation
ground—Direct Labour (recommended).

Estimated cost £1,250.

External painting work at (a) Burnell
Road area, (b) Danescourt Crescent area.
(c) Elstead Court, (d) Sydney Road, and
(e) Sutton Common Road, Sutton—Griffin
Bros., 256 Tokyngton Avenue, Wembley,
Middx., (a) and (b) £1,766, and
M. O'Connell, Ltd., (c), (d) and (e), £870,
respectively (recommended).

Swansea.—Extension of existing library
and erection of a new arts building (first
stage of the main arts block for University
College of Swansea—The Demolition and
Construction Co., Ltd., 3 St. James's
Square, London, S.W.1. Estimated cost
£450,000. Sir Percy Thomas and Son.
architects, 104 Walter Road, Swansea,
W. T. Hills and Co., quantity surveyors,
8 St. James Crescent, Swansea; A. F. Myers
and Partners, mechanical and electric
consultants, 147 Victoria Street, London,
S.W.1. Design of the reinforced concrete
frame of the arts block is by W. S. Atkins
and Partners, consulting engineers, 158
Victoria Street, London, S.W.1.

Teddington, Middx.—Construction of a precast concrete frame for Broom Road

reddington, Middx.—Construction of a precast concrete frame for Broom Road Secondary Boys' School for C.C. Whitfield Lewis, county architect—Modular Concrete Co., Ltd., 1258/1260 London Road, London, S.W.16, £32,423.

Tottenham, Middx. — Extension to central library for B.C.—Direct Labour (recommended, subject to Ministry approval). Estimated cost £12,828.
Tottenham, Middx. — Provision of additional dressing accommodation at the small swimming pool at the Municipal Baths for B.C. — Direct Labour (recommended, subject to Ministry approval). Estimated cost £7,875.
Uppingham, Rutland. — Improving pre-war houses for R.D.C.—George Tyers Bros., 94 South Street, Oakham, £32,357 (subject to Ministry approval).
Wallsend, Northumb. — Office additions for Swan Hunter and Wigham Richardson, Ltd. — Purdie Lumsden and Co., Ltd., Oxford Street, Newcastle upon Tyne, Work commenced.

Street, Newcaste upon Tyle.

Wandsworth.—Design and construction of piled foundation and superstructure of a five-storey office block at Broomhill Road for Redifon. Ltd. Austin Vernon and Partners, architects, 5 Buckingham Place, London, S.W.I.—Modular Concrete Co., Ltd., 1258-1260 London Road, London, S.W.16, £22.600 (Main contractor, W. J. Mitchell and Son, Ltd.)

Wanstead and Woodford, Essex.—External painting at Thurlby estate for B.C.—S. C. Grover, Ltd., Grange Works, Clinton Road, London, E.7, £7.104 (recommended).

Mestminster. — Rebuilding at Whitcombe Street and Panton Street. London, W.I (Stone's Chop House), for Savoy Hotel. Ltd. Plans by A. Martin French, Bond Street House, 14 Clifford Street, London, W.I—Harry Neal, Ltd., 117 Baker Street, London, W.I. Estimated cost £400,000.

West Suffolk. — Erection of the Breckland Secondary School at Brandon for E.C.— Tooley and Youngs, Stalham, Norfolk,

Tooley and Youngs, Stalham, Norfolk, £138,248.

Whitley Bay, Northumb.—Erection of supermarket, Earsdon Road, for Laws Stores, Ltd., Gateshead. Mauchlen, Weightman and Elphick, architects, 1.2 Saville Row, Newcastle upon Tyne—Shields Brothers, Swalwell, Dur. Work commenced.
Erection of filling station, workshops and showrooms in Claremont Road for North Shields Co-op. Society. Ltd., Camden Street, North Shields. Waring and Netts, architect. 1 Lansdowne Terrace East, Gosforth—M. J. Liddell and Son, 36 Great North Road, Newcastle upon Tyne.

Urmston, Lancs.—Construction of pineline and pumping station at Carrington Works for Petrochemicals, Ltd.—Iohn Laing and Co., Ltd., Dalston Road, Carlisle.

Willesden, Middx.—Following for B.C.: Initial repairs and adaptations at 25 Princess Road—Direct Labour, £1,564, major works at 111 Cambridge Road and 63 Carlyle Avenue, 81 and 93 Shakespeare Avenue—E, and M. Builders, 2 Plympton Road, London, N.W.6, £1,470, and Kelly (Builders), £1,079, £1,591 and £1,197, respectively (recommended, subject to Ministry approval).

#### CLOTHING AND TEXTILES

CLOTHING AND TEXTILES

Bradford, Yorks.—Supply of following for City Council: 4,250yd. of cloth for drivers and conductors uniforms and 700yd. of cloth for conductresses uniforms—Reuben Gaunt and Sons, Ltd., Farsley, Pudsey, £4,356 and £682, respectively; 1,250 men's dust jackets—Ellis Overalls (Halifax), Ltd., Unity Works, Gaol Lane, Halifax, £1,235.

Luton, Beds.—Supply of 180 jackets, 360 pairs of trousers and 75 overcoats for male drivers and conductors for B.C.—Manclark and Sons, Ltd., Hutchison Road, Edinburgh, 11, £831, £864 and £340, respectively (recommended).

Maidenhead, Berks.—Provision of workmen's protective clothing for B.C.—Industrial Safety Equipment and Clothing, 9 Gough Square, London, E.C.4, £366 (recommended).

Maidenhead, Berks.—Provision of workmen's protective clothing for B.C.—Industrial Safety Equipment and Clothing, 9 Gough Square, London, E.C.4, £366 (recommended). Reading, Berks.—Supply of uniform clothing (transport) during the three years ending March 31, 1964, for B.C.: Tunics, trousers and overcoats—Manclark and Son, Ltd.. Hutchison Road, Edinburgh, 11, £5.191; mackintoshes—A. Talwith and Co., Ltd.. 37 Monsell Road, London, N.4, £1,122; caps—Dillingham and Edwards, Ltd., 44 Bute Street, Luton, £189 (recommended).

#### DEMOLITION

Battersea. — Demolition of buildings at the Wilditch Street section of the Battersea Park Road scheme for B.C.—J. Hunt (Erith), Ltd., 151 West Street, Erith, Kent, £1,391 (recommended).

Chelmsford, Essex.—Demolition of a block of houses in the George Street area for B.C.—K. E. Wright, 16 Rose Glen, Chelmsford, to pay Council £60 and to take possession of the materials from the demolition.

som and Ewell, Surrey.—Demolition of cottages for the erection of six one-bed-room flats in the Kingsway housing scheme for B.C.—D'Marco, Ltd., 64 Birchanger Road, London, S.E.25, £180 (recomended)

mended).

Heston and Isleworth, Middx.—Demolition of
40 Inwood Road, Hounslow, for B.C.—
Leonard Perlin, Ltd., 411 St. Margarets
Road, Isleworth, £49 (recommended).

Maidstone, Kent.—Demolition of Bridge Lodge for B.C.—R. H. Daynes, Sitting-bourne, £105 (recommended).

bourne, £105 (recommended).

St. Marylebone. — Demolition at Broadley Street-Penfold Street site for B.C.—London Demolition Co., Ltd., 575-577 London Road, Isleworth, Middx., £1,010 (recommended).

Salford, Lanes.—Demolition and site clearance of properties in Ellor Street clearance area 6 for City Council—A. Palmer. 120 Sussex Street, Manchester, 7, £1,100 (recommended).

(recommended).
heffield.—Demolition of following for City
Council: Property 13-17 and 1-3 Court 1,
Fornham Street, and the shoring of adjoining properties—Direct Labour, estimated
cost £200; 5 Bishop Street—John Needham
and Co. (Sheffield), Ltd., Sheffield (in
lieu of previous tender).

#### ELECTRICAL

Bradford, Yorks.—Electrical work on the Allerton housing estate (scheme 54) for City Council—J. Carter and Sons (Bradford), Ltd., Bradford, £7,414 (recom-

ford), Ltd., Bradiord, mended).

Folkestone, Kent. — Electrical and plumbing work for stage II of the modernisation of 99 houses at Dallas Brett Crescent for B.C.—John Hawkes, Ltd., Walmer, Deal, £4,666 (recommended, subject to Ministration of the Council: In-

54.666 (recommended, subject to Ministry approval).
Liverpool.—Following for City Council; Installation of automatic fire detection devices at various points in the museum building, William Brown Street, and installation of an automatic fire detector system at the Town Hall with a direct connection to the Hatton Garden Fire Station—Associated Fire Alarms, Ltd., Venice Chambers, 61 Lord Street, Liverpool, 2, £2,350 and £2,634, respectively; installation of electricity at five cottages, viz., 1 and 2 Eunant, 1 and 2 Rhiwargor and Alltforgan, Lake Vyrnwy—C. R. Evans, 7 Bridge Street, Llanfyllin, £1,082 (recommended).

Luton, Beds. — Electrical installation at the slaughterhouse for B.C.—Cawdells of Luton, Ltd., 55 Wellington Street, Luton, £1,908

Ltd., 55 Wellington Street, Luton, £1,908 (remmended).

Manchester.—Following for City Council: Supply of six service lifts for new terminal building at the Airport—Electro Lifts, Ltd., Bradford, Yorks.; electrical installation for combined clinic at Plant Hill Road, Blackley

combined clinic at Plant Hill Road, Blackley
—Direct Labour.
Supply of electrical equipment and
electrical installation work at communal
laundries at Miles Platting and Churnet
Street, Collyhurst—Sadler and Kinsey, Ltd.,
Manchester, and G. W. Henry, Ltd., Brighouse, respectively (all recommended).

Newark, Notts.—Electrical work for development, phase 2, external services at Balderton Hospital, for Sheffield Regional Hospital
Board—Arthur Ford, Ltd., Nottingham,
£5,611 (recommended).

Peterborough.—Electrical installations in 172

Duard—Artnur Ford, Ltd., Nottingham, £5,611 (recommended).

Peterborough.—Electrical installations in 172 dwellings for City Council—M. F. Hansen, 46a Central Avenue, Peterborough, £4,298 (recommended).

Rochester, Kent.—Erection work for the two-storey administrative block comprising phase I of the erection of an indoor sports stadium at Buckmore Park for the Medway West District Association. Derek Buckler and Partners, architects, 14 Manor Road, Chatham—Phillips, of Gillingham, Ltd., 82 Watling Street, Gillingham. Work has just commenced.

Smethwick, Staffs,—Installation of electrical equipment in dwellings at Wigorn House site, Lightwoods Hill, for B.C.—Etna Lighting and Heating Co., Ltd., 293a Broad Street, Birmingham, 1, £1,395 (recommended).

Southwark.—Installation of new signals.

Street, Birmingham, 1, £1,395 (recommended).

Southwark. — Installation of new signals at intersections of Borough Road, Newington Causeway and Harper Road for B.C.—Siemens and General Electric Railway Signal Co.. Ltd., East Lane, Wembley, Middx., £2,750 (recommended).

£2,750 (recommended).

Stockport, Ches. — Following for B.C.: Electrical installation for 62 dwellings, contract 7. Canal Bridge estate—H. P. Dowell and Sons, Market Street, Hayfield, Stokport, £2,587. electrical installation at St. Anne's R.C. School — Hallams (Electrical Contractors), Ltd., 143 Buxton Road, Stockport, £6,377; installation of a lift at Reinbek Home extension—Marryat and Scott, Ltd.,

Wellington Road, South Hounslow, Middx.,

Wellington Road, South Hounslow, Middx., £2,020.

Stoke-on-Trent, Staffs.—Electrical installation in 52 dwellings (group I) at Longton Hall Road, Longton site, for City Council—Barker and Co., 13 Trentham Road, Longton, Stoke-on-Trent, £1,226 (recommended).

mended).

Wanstead and Woodford, Essex.—Provision of lifts at Eastern Avenue housing estate for B.C.—Express Lift Co., Ltd., 9 Greycoat Street, London, S.W.1 (recommended).

Willesden. Middx.—Lift installations at block A. Willesden Lane, the cinema site and block N. South Kilburn, for B.C.—Express Lift Co., Ltd., 9 Greycoat Street, London, S.W.1, £6,410. £8,256 and £8,196, respectively (recommended).

#### FENCING

Sheffield.—Erection of wrought-iron fenc-ing at Fox Hill Road and Browning Road, Parson Cross estate, for City Council— Direct Labour (recommended). Estimated cost £2,490.

cost £2,490.

Stockport, Ches. — Provision of boundary fencing and gates at Longford Road playing fields for B.C. — Chas. D. Rathbone and Son, Gorsey Mount Street, Stockport, £754.

Wanstead and Woodford, Essex. — Provision of fencing at Old Mill Playing Field and Roding Lane Sports Ground for B.C. — Bell and Webster, Ltd., Essex Road, Hoddesdon, Herts. (recommended).

Ampthill, Beds. — Following for R.D.C.: (1)
Lodge Road, Cranfield, Bletchley—laying of approximately 313yd. of 3im. asbestoscement mains; (2) Bunyan's Walk, Harlington, Dunstable—approximately 153yd. of 3in. asbestos-cement mains; and (3) the erection of a small brick-built booster station at Lidlington. C. A. Lewis, engineer—(1 and 2) J. G. Minns and Sons, 13 Hawkins Road, Bedford, £430 and £345, respectively; and (3) D. U. Gillham, Newton Longville, Bletchley, Bucks., £1,437. Work commencing June 1.

Bradford, Yorks.—Supply of six additional waste water meters to the waterworks for City Council—G. Kent, Ltd., Luton, £1,080; installation by Direct Labour £3,518 (recommended).

Farnham, Surrey.— Provision of three submersible pumping units and three variable speed multi-section type booster pumps for the Britty Hill pumping station of the Wey Valley Water Co. Rofe and Raffety, consulting engineers, 9 Brewers Green, London, S.W.1.—Berry Hill (Engineers), Ltd., P.O. Box 5, Cheadle, Stoke-on-Trent. Estimated cost £30,000.

Huntingdon.— Laying and jointing of approximately 4,000yd. of 3in. diameter asbestos-cement water mans with screwed joints, together with ancillary works, in the parishes of Great Gidding, Steeple Gidding and Little Gidding for R.D.C. Pick, Everard, Keay and Gimson, consulting engineers, 6 Millstone Lane. Leicester—W. Emerson, Spilsby, £1,669 (accepted); G. E. Atkin and Son, Ltd., £2,235; Biggs Wall and Co., Ltd., £2,836; Frank G. Hanney and Son, £1,814; F. C. Whittaker, £2,962.

Liverpool.— Supply and installation of cathodic protection equipment on the pipeline of the aqueduct from Cuerdley to Speke for City Council—Metal and Pipeline Eudurance, Ltd., Victoria Street, London, S.W.I. £1,965 (recommended).

North Lonsdale, Lancs.— Laying of approximately 4,700 lin. yd. of 3in. and 4in. diameter asbestos-cement and spun-iron water main, together with valves and filters at Satterthwaite, for R.D.C. H. Whittaker, engineer—Herbert Cartner, 1 West Tower Street, Carlisle, £13,881.

Portland, Dorset.—S

B.C.—James E. Turner, Ltd., Limefield Brow, Walmersley, Bury, Lancs., £4,005.
Uttoxeter, Staffs.—Construction of a water tower for R.D.C.—Braithwaite and Co. (Structural), Ltd., Ryder Street, West Bromwich, £5,100.

#### HEATING AND VENTILATING

Bradford, Yorks.—Conversion of the existing coal-fired steam system to oil-fired low pressure hot water system with radiators, etc. at Dudley Hill Primary School and Hutton Primary and Secondary School, for City Council—Brightside Heating and Engineering, Ltd., 36-40 North Parade, Bradford, 1, £6,620, and Seymour Sweet and Co. (Leeds), Ltd., 12 Rampart Road, Leeds, 6, £7,268. respectively (both recommended). Caernarvonshire. — Heating installation at Ysgol Maelgwn School, Victoria Drive, Liandudno Junction, for C.C. A. L. Williams, county architect—Foster and Pearson, Ltd., Beeston, Nottingham, £4,394. Chelmsford. Essex.—Provision of under-

Pearson, Ltd., Beeston, Nottingham, £4,394.
Chelmsford, Essex.—Provision of underfloor heating and water pumping and ventilating machinery in multi-storey tower block at Melbourne estate for B.C.—Heating Investments, Ltd., 284 Regents Park Road, London, N.3, £3,062, and C. H. Lindsey and Son, Ltd., 68 Maldon Road, Colchester, £1,297, respectively.

Grimsby, Lincs.—Mechanical services for replacement of boilers at Maternity Hospital for Sheffield Regional Hospital Board—A. K. Singer, Ltd., Skegness, £8,564 (recommended).

for Sheffield Regional Hospital Board—
A. K. Singer, Ltd., Skegness, £8,564 (recommended).

Leeds.—Alterations to heating system at Kirkstall Road, works including provision of new unit heaters, etc., for City Council—Vincent Roberts and Co., 7 East Street Mills, Leeds, 9, £4,927 (recommended).

Mills, Leeds, 9, £4,927 (recommended).

Liverpool.—Following for City Council:
Supply and installation of all materials and
apparatus for central heating, air-conditionand and steam installations in the bridge
gallery and galleries 2 and 3 at Walker
Art Gallery—James Mercer (Preston), Ltd.,
Tulketh Hall Works, Hesketh Drive.
Preston, £12,806; supply and installation
of three oil-fired heating boilers at new
Grafton House Aged Persons' Hostel—
Consolidated Heating Co., Ltd., Columbia
Mill, Bedford Street, Bolton, £8,741 (both
recommended). recommended).

recommended).

Luton, Beds.—Following for B.C.: Installation of boilers at Maidenhall Primary School and provision of heating, steam and hot water services at the slaughterhouse—S. Smart and Co., Luton, £3,435 and £1,286, respectively; heating installation at the central depot, Portland Road/Kingsway — Weldablity Engineering Co., Dunstable, £15,403 (recommended).

heating instance Portland Road/Kingsway — Engineering Co., Dunstable, £15,403 (recommended).

Sheffield.—Mechanical services for reorganisation of steam mains at City General Hospital for Regional Hospital Board — Newton Chambers and Co., Ltd., Sheffield, £16,971 (recommended).

Smethwick, Staffs.—Following for B.C.: Heating and hot water services for the gymnasium at Hadley playing fields — W. Dickens and Co. (Heating Engineers), Ltd., 187 Wolverhampton Street, Dudley, £1,701; replacement of the heating boilers at Cape Junior School—Brightside Heating and Engineering Co., Ltd., 17 Summer Row, 3. £783 (recommended).

#### HOUSING SCHEMES

tcham, Salop.—Eighteen old people's dwellings and a communal room each at Bayston Hill and Cross Houses for R.D.C.—Shutt and Co., Ltd., Castlecroft Lane, Wightwick, Wolverhampton, £24,272 and £24,690, respectively. Atcham.

and £24,690, respectively.

Barking, Essex. — Following for B.C.: Linton and Church Roads redevelopment (contract II)—electric fires and tiled surrounds and staircase tiled treads—Abbey Tile Co., Ltd., Hertford Road, Barking, £3,364 and £799, respectively; wall tiling, external and mosaic tiling, tiled dadoes and vinyl floor tiles—Reliance Tiling and Mosaic Co., Ltd., 7 Grosvenor Street, London, W.I. £21,092, £826, £2,372 and £12,665, respectively; floor tiling to access decks—Acme Flooring and £826, £2,372 and £12,665, respectively; floor tiling to access decks—Acme Flooring and Paving Co., Ltd., River Road, Barkins. £2,596; plastic wall decoration—Plastic Surfaces, Ltd., 155 Sandringham Road. London, E.8, £2,055; roofing to external garages—The Ruberoid Co., Ltd., 1 New Oxford Street, London, W.C.1, £2,917.

Mayesbrook Meadow redevelopment (contract II)—wall tiling and vinyl floor tiles—Reliance Tiling and Mosaic Co., Ltd., £3,616 and £2,169, respectively; electric fires and tiled surrounds—Abbey Tile Co., Ltd., £575.

E575.

Basingstoke, Hants.—Part of the 34th, 37th and 38th instalments at South Ham housing estate for B.C.: Groups C.I. 46 dwellings and 24 garages and C.5, 17 dwellings and 1<sup>a</sup> garages—A. J. Dunning and Sons

(Weyhill, Ltd., Weyhill, Hants, £86,961 and £38,925; C.2, 23 houses and 18 garages and C.7, four bungalows—H. N. Edwards and Partners Ltd., 21 Brook Street, Basingstoke, £59,085 and £7,488, respectively; C.4, 15 houses and 12 garages—W. M. Annette, Ltd., Basingstoke, £36,159; C.6, 12 houses and 27 garages—G. W. Oliver and Sons, Ltd., Flaxfield Road, Basingstoke, £33,088 (recommended).

Ltd., Basingstoke, £36,159; C.6, 12 houses and 27 garages—G. W. Oliver and Sons, Ltd., Flaxfield Road, Basingstoke, £33,088 (recommended).

Berwick, Northumb. — Six houses at Albert Road, Spittal, for B.C.—J. H. Pierce, Tweedmouth, Berwick,

Bairgowrie and Ratiray, Perths. — Following works in connection with the erection of a four-storey block containing eight threapartment and eight two-apartment houses in the William Street redevelopment, second phase, for B.C. W. J. Brewster, Grant and Henderson, chartered architects, Wellmeadow, Blairgowrie—G. G. Farquharson (builder), James Street, Blairgowrie, £12,920; D. and J. Scott (joiner), Castle Street, Blairgowrie, £5,190; George Constable (plumber), Sidlaw Road, Rattray, Blairgowrie, £1,730; J. S. Laburn, Ltd. (plasterers), Leslie Street, Blairgowrie, £2,335; J. Scott and Co. (electricians), 6 Princes Street, Perth, £3,131; Malcolm Main and Son (painters), 108 Lochgelly Road, Cowdenbeath, £640; Parker Rodgers (blacksmiths), Burnside Forge, Carnoustie £691; Briggs and Sons, East Camperdown Street, Dundee, £1,352; Reid and McCutchcon (glaziers), 227 Strathmore Avenue, Dundee, £328; J. Mitchison and Sons, Ltd. (Contractors), Back Dykes, Auchtermuchty, £2,436; Limmer and Trinidad Lake Asphalt Co., Ltd., 118 Crew Road North, Edinburgh, £963.

Bradford, Yorks.—Two hundred and thirty-four dwellings on the Allerton housing estate and 180 dwellings, five terrace shops and a clinic on the Buttershaw housing estate, for City Council—Direct Labour, £743,462 (recommended).

Bromyard, Heres. — Four old people's bungalows at Froomes Hill for R.D.C.—Reema Construction Co., Ltd., Milford Manor, Salisbury, £5,130.

Chelmsford, Essex.—Fifty-six houses, 24 flats and 85 garages (contracts 1 and 4) at Meadgate estate for B.C.—(1) Duncan Cameron and Hutchinson, Ltd., Barclays Bank Chambers, Braintree, £59,699, and (4) Ernest W. Baker (Builders), Ltd., Rowden Works, Rowden Park Gardens, London, E.4. Eastbourne, Sussex.—Following for B.C.: Conversion of 46 Upperton Gardens into

W. Baker (Builders), Ltd., Rowden Works, Rowden Park Gardens, London, E.4, £83,848.

Eastbourne, Sussex. — Following for B.C.: Conversion of 46 Upperton Gardens into eight bed-sitting-room flats—A. J. Bessant, Ltd., 36 Grove Road, Eastbourne, £3,770 (recommended, subject to Ministry approval); Carn and Son, Ltd., £3,910; J. G. Robinson and Sons, Ltd., £4,275; Y. J. Lovell (Sussex), Ltd., £4,427; W. Llewellyn and Sons, Ltd., £4,489; A. Hudson (Builders), Ltd., £4,610.

Thirty-eight flats and eight garages at the rear of Binstead Close and Faygate Road — E. Powell and Sons, Ltd., 24 Channel View Road, Eastbourne, £74,939 (recommended, subject to Ministry approval); Ringmer Building Works, Ltd., £75,220; William Willett, Ltd., £77,399; Y. J. Lovell (Sussex), Ltd., £78,467; Walter Llewellyn and Sons, Ltd., £79,991; The Hassocks Properties Development Co., Ltd., £85,964.

Esher, Surrey. —Fourteen two-storey houses in seven pairs and 31 garages in two blocks (one of 15 and another of 16) at West Molesey, contract 294, for U.D.C., G. Alderton, engineer—F. H. Norris Great Bookham, £30,569.

Evesham, Worcs. —Twelve houses at Offenham for R.D.C. —Messrs. Buildrite, Shurdington, Cheltenham, £24,316 (recommended, subject to Ministry approval).

Glasgow.—Thirty-six three-apartment houses at Cockenzie Street and 30 houses at

Chettennam, £24,310 (recommended, subject to Ministry approval).

Glasgow.—Thirty-six three-apartment houses at Cockenzie Street and 30 houses at Dundee Drive for City Council—Direct Labour, £89,112 and £75,244, respectively.

High Wycombe, Bucks.—Two houses at Abbey Barn Road and two at Keep Hill Road, for B.C.—R. Cooper, 4 Clifton Terrace, Cliftonville, Dorking, Surrey, £8,142 (recommended, subject to Ministry approval).

Leeds.—Four hundred and nineteen traditional dwellings and 151 garages at Swinnow, Charing Cross Street, Kirkstall Hill and Moorville (Beeston), for City Council—N. B. Bell and Co., Ltd., Frankland Terrace, Leeds, £853,346 (recommended, subject to Ministry approval).

Leicester.—Additional five bungalows at Thurnby Lodge estate for City Council—John Laing Construction. Ltd., Mill Hill. London, N.W.?, £6,265 (recommended, extension of contract).

extension of contract).

Lewisham.—Following for B.C.: Thirty flats, 34 houses and 19 garages at Elmer Road. Engleheart Road, Sangley Road and Shorn-

dean Street—Rowley Bros., Ltd., Tower Works, Dunloe Avenue, London, N.17, £176,172 (recommended); Henry Kent (Builders), Ltd., £187,202; Patman and Fotheringham, Ltd., £187,211; J. A. Proctor, Ltd., £190,183; Allen Fairhead and Sons, Ltd., £190,614; Walter Lilly and Co., Ltd., £191,682; Croudace, Ltd., £191,968; M. J. Gleeson (Contractors), Ltd., £191,968; M. J. Gleeson (Contractors), Ltd., £195,199; W. J. Simms, Sons and Cooke, Ltd., £196,276; W. R. Oldham, Ltd., £197,000; 10 shops and 10 maisonnettes at 38-56 Campshill Road—W. R. Oldham, Ltd., Southend Lane, London, S.E.26, £42,385 (recommended); Henry Kent (Builders), Ltd., £42,922; Waiter Lilly and Co., Ltd., £45,335; T. R. Roberts (Builders), Ltd., £46,334; Rowley Bros., Ltd., £47,108; T. Cutler and Sons, Ltd., £47,191; Halse and Sons, Ltd., £47,382; Allen Fairhead and Sons, Ltd., £47,382; Allen Fairhead and Sons, Ltd., £47,382; Mhyatt (Builders), Ltd., £48,608; ½ flats and 17 garages at 1-9 and 14 Corona Road and land adjoining 1 Corona Road—W. R. Oldham, Ltd., £81,958 (recommended); Robert Hart and Sons, Ltd., £48,608; ½ flats and 17 garages at 1-9 and 14 Corona Road and Looke, Ltd., £88,832; Thomas and Cooke, Ltd., £84,808; ½ flats and 17 garages at 1-9 and 14 Corona Road and Cooke, Ltd., £88,828; Thomas and Edge, Ltd., £89,060; T. R. Roberts (Builders), Ltd., £84,834; Henry Kent (Builders), Ltd., £88,828; Thomas and Edge, Ltd., £89,060; T. R. Roberts (Builders), Ltd., £89,281; Thomas and Sons, Ltd., £89,250; Rowley Bros., Ltd., £89,300; Croudace, Ltd., £88,828; Thomas and Sons, Ltd., £89,250; Rowley Bros., Ltd., £89,300; Croudace, Ltd., £89,666; W. J. Simms, Sons and Cooke. Ltd., £88,683; M. J. Gleeson (Contractors), Ltd., £89,666; W. J. Simms, Sons and Cooke, Ltd., £89,660; T. R. Roberts (Builders), Ltd., £89,660; T. R. Roberts (Builders), Ltd., £89,281; Thomas and Edge, Ltd., £89,060; T. R. Roberts (Builders), Ltd., £89,300; Croudace, Ltd., £89,666; W. J. Simms, Sons and Cooke. Ltd., £89,660; T. R. Roberts (Builders), Ltd., £89,300; Croudace, Ltd., £

Ltd., Altear Road, Formuly, Lanes, English (recommended, subject to Ministry approval).

Mariley, Worcs.—Erection of two old people's bungalows at Wichenford and two at Alfrick and modernisation of four bungalows at Wichenford for R.D.C.—Flanagans, Ltd. Spring Lane, Malvern, £5,596 (recommended, subject to Ministry appproval).

Middlesbrough, Yorks.—Nineteen house, four flats, and nine garages on the Easterside estate for B.C.—J. A. Kenyon, borough engineer—Direct Labour, £38,920.

Northallerton, Yorks.—Seven bungalows at Borrowby and 14 at Romanby, for R.D.C. Brierley, Syme and Leckenby, architects. 10 Lendal, York—R. B. A. Moody Bros. Ltd., 18 East Road, Northallerton, £9,540, and W. Thompson, Ltd., North End. Northallerton, £19,039, respectively.

Peterborough.—Eight bungalows at Maxy for R.D.C.—G. Matthews and Son. Eye £12,647 (subject to Ministry approval).

Peterborough.—Sixty dwellings at Crown Streat extension estate for City Council—

Peterborough. — Sixty dwellings at Cro Street extension estate for City Council H. J. Firman, Ltd., Flag Fen, Newa Road. Peterborough. £91,556 (reco mended, subject to Ministry approval).

mended, subject to Ministry approval).

montypool, Mon.—Trevethin neighbourhood unit (phase 2, scheme F), 94 houses (Il blocks of six and 14 pairs) for U.D.C.

Dawkes, architect—Modern Buildin. Ltd., Bridge Street, Newport, £182.21; Wn. Arthur, Ltd., £199,975; Gee, Walker and Stater, £196,175; Uzzel and Morgan. £198,459.

Vorks.—Eurther housing deschepham. Pontypool,

£198.439.
otherham, Yorks. — Further housing development at Kimberworth for B.C.—Frank Haslam, Milan and Co., Ltd., Regent Chambers, Hall Cross, Doncaster, £294.55 (subject to Ministry approval).

Chambers, Hall Cross. Doncaster, £294.55 (subject to Ministry approval).

Scotland.—Contracts placed by Scotlish Srecial Housing Association, Ltd., from March 24 to April 20:

Leven Road. Kennoway (48 three-slote flats): Robert Terras, Junr., High Road Exwemyss—all trades.

Kingsway West, Dundee (126 Wimps): Ross Contractors. East Calder—fencing.

Murravsgate (first development), White Murravsgate (first development), Windows (280 mark III flats): Holmpress Piles, Luceds Road. Hull—piled foundations.

Thrashbush, Airdrie (204 traditional Atholl Houses, Ltd., 29 Park Circs Glasgow, C.3—all trades.

Gairloch, Ross-shire (two Dunder Cottages): G. and W. Brunton, Ltd., a Melville Street, Edinburgh.—fencing.

Mountpleasant, Thurso (200 Wimpey No-fines): Barnet and Morton, Ltd., Hay-field Works, Kirkealdy—handrails.
Boglestane. Port Glasgow (64 traditional): Anglo-American Asphalte Co. Ltd., Southerhouse Road, Coatbridge—hot soft pitch to solums.
Artillery Park, Haddington (125 traditional): Robertson Bros., 28 Martins Gate, Haddington—balance of handrails.
Work undertaken by Direct Labour Organisation. Site Servicing:
Murraysgate. Whitburn — first stage. House Erection:
Wynford first development, Glasgow (five blocks of mark III, 280 flats)—all trades.

all trades.
Eglington, Irvine (98 maisonnettes)—all

races.
Maintenance:
Morestone, Stirling (74 houses): Jas. and
M. Rough, Ltd., 181 Duke Street, Glasgow—
M. Rough, M. Rough

painter. Park Avenue. Loanhead (100 Atholl): Ross Contractors. East Calder—fencing. Toryglen. Glasgow (92 traditional): S.S.H.A., Ltd., D.L.O.—cleaning and treat-

ing roofs.

S.S.H.A.. Ltd., D.L.O.—cleaning and treating roofs.

Sheffield. — Additional works in connection with part 1 of the Park Hill redevelopment scheme, including the provision of five additional public conveniences and improvements to the external finishing on the decks, pilotti ceilings and other public areas, for City Council — Direct Labour (recommended, subject to Ministry approval). Estimated cost £23,100.

Smethwick, Staffs.—Following for B.C.: Two hundred and eighty-eight dwellings in two 20-storey blocks and four four-storey blocks and 73 garages on redevelopment site 4 (Cheshire Brewery)—C. Bryant and Son, Ltd., 65 Whitmore Road, Birmingham, 10, £633,556; 373 dwellings at Kingsway, Oldbury—W. J. Whittall and Son, Ltd., 132 Lancaster Street, Birmingham, 4, £992,889 (recommended).

Lancaster Street, Birmingnam, 1, 272,002 (recommended).

Stafford.—One hundred and thirty-six houses and 112 flats in No-fines concrete and 45 garages at Highfield 2 estate for B.C.—G. Wimpey and Co., Ltd., Hammersmith Grove, London, W.6, £416,243 (recommended).

mended). Staffs.—Ninety-five dwellings (group 3) at Holden Lane, Sneyd Green estate and 113 dwellings (group 2) at Longton Hall Road, Longton, for City Council—Direct Labour, £150,506 and £179,982 (recommended, subject to Ministry approval).

Swadlincote, Derbys.—Thirty-two flats, com-prised in two three-storey blocks, together

with all ancillary works, in Midland Road for U.D.C. J. W. May, engineer and surveyor—R. Guilford, Ltd., Ascot Drive. Derby, £64,660. Work about to commence.

Wanstead and Woodford, Essex.—Erection of houses at Lechmere Avenue for B.C.—Jenners (Builders), Ltd., High Road, Woodford Bridge, £29,945 (recommended).

Wellingborough, Northants.—Five bunga-lows at Church Street, Middle Street, Isham, for R.D.C.—R. Bridgman and Co., 102 Eastfield Road, Wollaston, Welling-borough, £5,401.

est Hartlepool, Dur.—Erection of two groups of 134 and 28 houses on Owton Manor estate for B.C. A. G. Sinclair, borough architect—G. M. Pearson and Son. Ltd., Front Street, Hetton, Durham. £244,329.

whittlesey, I. of E.—Four Homeille tradi-tional bungalows at Windmill Street and six at Inhams Road for U.D.C.—L. Peat. Chatteris, Cambs.

Six at Inhains Road for U.D.C.—L. Peat. Chatteris, Cambs.

Willesden, Middx.—Following sub-contracts at South Kilburn estate for B.C.: Concrete frame and foundations, block N housing site 127—Helical Bar and Engineering Co. Ltd., 82 Victoria Street, London, S.W.I. £32.762: metal windows and R.C. floors and roofs, blocks S and U—Henry Hope and Sons, Ltd., 17 Berners Street, London, W.I., £1,152, and Caxton Reinforced Concrete, Ltd., 45 Bedford Road, London, W.C.I., £7,851, respectively; piling and precast sills, beams and joists, cinema site——West's Piling and Construction Co. Ltd., Columbia House. Aldwych, London, W.C.2, £5,870, and Kendell's Stone and Paving Co., Ltd., Barnett Wood Lane, Leatherhead, Surrey, £6,414 (recommended).

Worthing, Sussex.—Erection of caretaker's

Surrey, 20.414 (recommended).

Worthing, Sussex.—Erection of caretaker's cottage at the proposed high school for bovs for B.C.—Renown (Contractors). Ltd., Sea Lane, Ferring, Worthing, £2,619 (recommended).

#### PLANT AND MECHANICAL TRANSPORT

Battersea. — Supply of a Dennis 3-ton low-loading tipper lorry for B.C.—Commercial Motor Garage and Repair Co., Ltd., 265 Kingston Road, London, S.W.19, £1,590, including allowance made on similar redundant vehicle (recommended).

dundant vehicle (recommended).

Bradford, Yorks.—Supply of following for City Council: A Marquis water tender including Coventry Climax F.W.P. pumping unit—Merryweather and Sons, Ltd., Greenwich High Road, London, S.E.10, £6.142; trailer-mounted rod percussion boring rig and equipment—English Orilling Equip-

ment Co., Ltd., Huddersfield, £1,141 (both

ment Co., Ltd., Huddersheid, 2016 follow-recommended).

Epsom and Ewell, Surrey.—Supply of following for B.C.; One type G.A. diesel engine motor roller—Aveling-Barford, Ltd., Invica Works, Grantham, Lines., £1.004; one Nuffield 4 tractor—Woodcote Motor Co., Ltd., Church Street, Epsom, £793; one Paxit Major III continuous loading refuse collection vehicle—Denn's Bros., L.d.

Collection vehicle — Dennis Bros., L.d., Guildford, £3,880 (recommeded).

One additional Loadmaster mechanical shovel — The Chaseside Engineering Co., Ltd., Station Works, Hertford (recommended).

mended).

Folkestone, Kent.—Supply of a refuse collector vehicle and trailer for B.C.: Shrivoke and Drewry. Ltd., Letchworth. Herts., £3,438 and £215, respectively (recommended, subject to Ministry appropriate).

Herts., £3.438 and £215, respectively trecommended, subject to Ministry approval).

Ilkeston, Derbys.—Supply of a mechanical orderly sweeper for B.C.—Lewin Road Sweepers. Ltd., Victoria Works, Hill Top, West Bromwich, Staffs., £2.900 (recommended).

Leeds.—Supply of following for City Council: One 2,3-ton diesel footpath roller and one 30cwt. diesel vibratory roller—Thomas Green and Son, Ltd., North Street, Leeds, 2, £1,544 and £1,164, respectively; one 5/6-ton tipping wagon—Tate of Leeds, Ltd., New York Road, Leeds, 2, £1,139; one road surfacing and finishing machine—Blaw Knox, Ltd., 90-94 Brompton Road, London, S.W.8, £5,998; one 10/12cwt. truck and two 5cwt. vans—Brown and White (Leeds), Ltd., 98 Roundhay Road, Leeds, 7, £1,124 (all recommended).

Liverpool.—Supply of following for City Council: Seven Ford Thames 15cwt. trucks—I Blake and Co., Ltd., Liverpool, £476 each; four Comment 15cwt. trucks—Sandon Motor and Engineering Co., Ltd., Liverpool, £476 each (recommended).

Luton, Beds.—Supply of one International BTD8 crawler tractor, complete with hydraulic bullgrader equipment, for B.C.—Saville (Tractors). Ltd., Southam Road, Banbury, Oxon, £3.011 (recommended).

Manchester.—Supply of following for City Council: A Fordson diesel tractor for use at Airport—H, and J. Quick, Ltd., Cheadle, Ches.; three Austin 1-ton chassis for mobile tower ladders, and three cabs and elevated platforms to be fitted to the chassis—Lookers, Ltd., Manchester (both recommended).

Peterborough.—Supply of 2 Broomwade compressor for City Council—George Cohen and Co., Ltd. London, W.12.

mended). Supply of compressor for City Council—George Cohen and Co., Ltd., London, W.12. £1,230 (recommended).

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Branch Office and Plant Depot: WINNERSH, WOKINGHAM, BERKS. Salford, Lancs.—Supply of one Merryweather 100ft. electrically controlled turntable ladder and attachments for City Council—Merryweather and Sons, Ltd., Greenwich High Road, London, S.E.10, £11,801 (recommended).

(recommended).

Sheffield.—Supply of following for City Council—Two Johnston suction sweepers mounted on Austin 5-ton S.W.B. chassis—Johnston Bros. (Engineering), Ltd., Johnston House, Hatchlands Road, Redhill, Reigate, Surrey, £3,450 each; two Jules Weitz railmounted tower cranes and ancillary equipment—A. W. V. Turner and Co., Ltd., Harvest Lane, Sheffield, 3, £16,446 (both recommended).

Smethwick, Staffs.—Supply of a refuse collection.

Smethwick, Staffs.—Supply of a refuse collec-tion vehicle for B.C.—Shelvoke and Drewry, Ltd., Letchworth, Herts.

Ltd., Letchworth, Herts.

Southwark. — Supply of following for B.C.:

Two Karrier Bantam highways tippers—
Rootes, Ltd., London, W.I, £1,925 (less £100
allowance for two Dennis tippers): two T.W.
type refuse collectors—Shelvoke and
Drewry, Ltd., Letchworth, Herts., £6,427;
Karrier Bantam tractor and trailer—Rootes.
Ltd., £1,949 (all recommended).

Stoke-on-Trent, Staffs.—Supply of a Fordson Super Major tractor for City Council— Knutsford Motors, Ltd., Hartshill, Stoke on-Trent, £525 (recommended).

#### PLAYING FIELDS, PARKS, ETC.

Cornwall.—Levelling and cultivating playing fields at Tregoney Proposed County Secondary School and Camelford Proposed Bilateral School, for C.C.—G. R. Osborne, 6 Metha Road, Newlyn East, Newquay, £1,851, and C. Roberts, Trencreek, Newquay, £1,148.

Leeds.—Resurfacing of tennis courts in various parks in the City for City Council —En-Tout-Cas Co., Ltd., Syston, Leicester. £5,766 (recommended).

Sheffield.—Following for City Council:

Sheffield.—Following for City Council:
Laying-out playing fields at the new City
Grammar School—C. A. Wilding and Co.,
Ltd., Hill Top Lane, Kimberworth, Rotherham, £19,484 (recommended)
Landscaping works for the Gleadless
Valley estate (area 16a) development—
Direct Labour (recommended, subject to
Ministry approval). Estimated cost
£4.925

#### RAILWAY ENGINEERING

ritish Railways. — Following contracts placed:

Eastern Region:

Alterations to existing sidings, laying of additional sidings and construction of lighting tower foundations at Parkeston Quay marshalling yard—Grant, Lyon and Co., Ltd., Scotter Road, Scunthorpe, Lines.

Construction of boiler-house, fire bar and iron casting compound at Doncaster locomotive works—George Simpson (London), Ltd., 53 Ebury Street, London, S.W.1.

Provision of parcels office at Barnsley Exchange station—A. Bradbury and Son (Contractors), Ltd., 334 Cemetery Road, Sheffield, 11.

Dismantling and removing of seven

Sheffield, 11.

Dismantling and removing of seven existing hydraulic lifts and supply and installation of six new 30cwt. capacity electrically operated goods lifts at Liverpool Street station—Etchells, Congdon and Muir, Ltd., Mill Street, Ancoats, Manchester, 4.

Repairs to outer dolphin of train ferry terminal, Harwich—W. and C. French, Ltd., 50 Epping New Road, Buckhurst Hill. Essex.

Ltd., 50 l Hill, Essex.

Reconstruction of portion of super-structure of underline bridge 53 between Appleby and Elsham — Thomas Fletcher and Co., Ltd., Forest Road, Mansfield, Notts.

Notts.
Reconstruction of piled sub-structure of underline bridge 63 over River Trent between Newark (Castle) and Collingham—W. and C. French, Ltd., South Brink, Wisbech, Cambs.
Earthworks, etc., in connection with the provision of a new marshalling yard at Tinsley, Sheffield—George Wimpey and Co., Ltd., Hammersmith Grove, Hammersmith, London, W.6.

#### ROADS, BRIDGES AND SITE WORKS

ntrim.—Reconstruction of the road from Templepatrick to Ballyclare for C.C.— W. M. Bolton and Sons, Ltd., Knock-cloghrim, Maghera, £265,358.

Antrim.— Reconstruction of route B.57, Templepatrick-Ballyclare, proposal 1220, for C.C., comprising construction of over 4½ miles of 24ft, wide carriageway, two bridges, two major culverts, and all other

ancillary works. W. Grigor, county surveyor—W. M. Bolton and Sons, Ltd., Moneysallin, Kilrea, Co. Derry, £265,358.

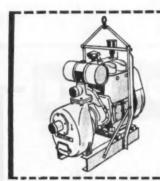
Barking, Essex.—Following for B.C.: Paving works around the Assembly Hall—W. and C. French, Ltd., 50 Epping New Road, Buckhurst Hill, £998; reconstruction of Ripple Road—George Wimpey and Co., Ltd., 26 Hammersmith Grove, London, W.6. £16,732.

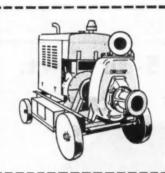
Battersea.—Piling works at stage 2 of Knox Road scheme for 42 maisonnettes and 21 bed-sitting rooms for B.C.—Frankpile, Ltd., 39 Victoria Street, London, S.W.I, £8,081.

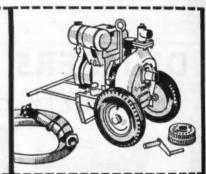
Blandford, Dorset.—Construction of a car park at rear of the National Provincial Bank, for B.C.—Roads Reconstruction (Contracting), Ltd., Stoneleigh House, Frome, £3,206 (recommended).

Bradford, Yorks.—Following for City Council—Hot rolled asphalt surfacing work in connection with the 1961-62 brighways programme—Trinidad Lake Asphalt (North Western), Ltd., India Buildings, Water Street, Liverpool, 2, £26,819; roads and sewers and general site works on the Reevy Road (West) estate, Buttershaw, and construction of roads and sewers and general site works on section F of the Allerton housing estate—Direct Labour, estimated cost £14,955 and £149,511, respectively; reconstruction of roads, section 3, on the Eshow estate—Ibmac, Ltd., Shipley, £21,879 (all recommended). Castleford, Yorks.—Construction of approximately 5,350 sq. yd. of 9in. reinforced concrete carriageway; the laying of 785 lin. yd. of precast concrete kerb, together with drainage and other ancillary works, for B.C.—Fallon (Civil Engineers and Plant Hire), Ltd., Ring Road Junction Works, Elland Road, Leeds, 11, £19,600.

Chelmsford, Essex.—Completion of footpaths at Meadgate estate for B.C.—E. Doe and Son (Contracts), Ltd., Fyfield, Ongar, £11,055 (in lieu of previous tender). Chertsey, Surrey,—Highway works in various parts of the district during 1961-62 for U.D.C. N. C. Goldsmith, engineer—W. and I. Glossop, Ltd., 123 East Hill, Wandsworth, S.W.18, £16,000; W. H. Gaze and Sons, Ltd., 139 Roehampton Vale, S.W.15, £4,000; Morrison (







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£2,500; and Herbent Ward and Sons (Egham), Ltd., Thorpe Lea, Egham, £500. Work commencing June.

Work commencing June.

Coventry. — Inner Ring Road (stage 2), Hill Cross to Swanswell Terrace, for City Council, comprising the construction of approximately 400 lin. yd. of dual carriage-way, 24ft, wide, cycle tracks and footpaths, including foul and surface water drainage. Granville Berry, city engineer and surveyor—Galliford and Sons, Ltd., Wolvey, Hinckley, Leics. Work just commenced.

Cowes, I. of W.—Reconstruction of Gordon Road for U.D.C.—Direct Labour (recommended). Estimated cost £8,000.

mended). Estimated cost £8,000.

Edinburgh.—First of two phases of the foundations for the £1\frac{1}{2}m. Napier College at Merchiston for Education Committee—James Miller and Partners, Ltd., 18 George Street, Edinburgh, £36,587.

Epsom and Ewell, Surrey.—Following for B.C.:
Construction of link road from Hook Road
to Chessington Road at Longmead light
industrial estate—T.H. Contractors, Ltd.,
300 Chiswick High Road, London, W.4,
E87,727.

300 Chiswick High Road, London, W.4, 887.727.

Surface carpeting works at A.24, Dorking Road (part), B.280, Chessington Road (part), and Paddock Road (part), Epsom—William F. Rees, Ltd., 54 Victoria Street, London, S.W.I.

Eston, Yorks.—Construction of approximately 4,000 sq. yd. of concrete flagged footpath, together with appurtenant works, on the Grangetown estate (section I) for U.D.C. N. C. Harrison, engineer and surveyor—T. R. Illingworth and Sons, Ltd., Peterlee. Co., Durham, £6,474 (accepted); I. W. Pearson and Co., Ltd., £9,784; Tarmac Roadstone, Ltd., £6,536. Work commencing in one month.

Hale, Ches.—Making-up of (a) Park Lane, and (b) Park Hill Road, Park Avenue, Ravenwood Drive and Mulway for U.D.C. D. C. Holland, engineer and surveyor—(a) A. C. Brew, Ltd., Irlam, and (b) Bituminous Surfacing, Ltd., Manchester (subject to Ministry approval).

Havani and Waterloo, Hants.—Construction of approximately 4,500 sq. yd. of 8in. reinforced concrete carriageways, 6,500 sq. yd. of 6in. reinforced concrete carriageways, 3,160 lin. yd. of kerbing, foul water drainage, surface water drainage, 6,500 sq.

yd. of footpaths, site clearance, and other ancillary works, at Milton Road housing site, Waterlooville, for U.D.C.—Southern Counties Construction Co., Ltd., 204 London Road, Waterlooville, Hants.

High Wycombe, Bucks.—Making-up of footpaths and the provision of street lighting at Hicks Farm estate, stage I, for B.C.—J. Smith and Sons, Ltd., Water Ash, Naphill, High Wycombe, £9,951 (recommended, subject to Ministry approval).

Leatherhead, Surrey.—Highway regrading and resurfacing on the A.243, between Randalls Road and The Plough; and highway improvement works on the A.246, near Beckley Cottages, Great Bookham, for U.D.C.—W. H. Gaze and Sons, Ltd., Gazeway, 139 Roehampton Vale, S.W.15, £6,619, and T. Vickers, Ltd., 208 Kingston Road, Leatherhead, £25,880, respectively.

Leeds.—Following for City Council: Housing estate works, Wyther Hostel, Wyther estate, and improvement works at Lidgett Lane (part)—Leake and Carney, Ltd., Il Holmefield Lane, Wakefield, £11,182 and £17,534, respectively (recommended).

Luton, Beds.—Reinstatement of road surfaces with hot-rolled asphalt during 1961-62 for B.C.—General Asphalte Co., Ltd., Graffon Road, London, N.W.5, £4,416 (recommended).

Maidstone, Kent,—Widening of Gatland Lane

B.C.—General Asphance
Road, London, N.W.5, £4,416 (recommended),
maidstone, Kent.—Widening of Gatland Lane
for B.C.—A. H. Hooker and Sons, Ltd.,
Otham, Maidstone, £21,109 (recommended,
in lieu of previous tender).
Manchester.—Construction of additional car
parking space and tennis courts at Didsbury
Training College for City Council—Burke
and Roberts, Ltd., Stockport (recommended).

Reconstruction of foot-

and Roberts, Ltd., Stockport (recommended).

Potters Bar. Middx.—Reconstruction of footway in Manor Road and footway and carriageway in Billy Lows Lane for U.D.C.—L. W. Bryant and Co., 12 Park View Gardens, Grays, Essex, £14.981. Work commencing next month.

Reading, Berks.—Final surfacing of the remainder of Queen's Road Car Park for B.C.—Amey's Asphalt Co., Ltd., Abingdon, £1,172 (recommended).

Rotherham, Yorks.—Fenton Road extension for B.C. E. J. Manson, borough engineer—Tarmac Civil Engineering, Ltd., Rotherham, £107,577.

Rothwell, Yorks.—Leeds-Exeter trunk road A.61 improvement south of Ledger Lane, part 2, for U.D.C. A. D. W. Dibble, engineer and surveyor—John Hinchcliff and Son, Ltd., Wakefield Road, Barnsley, £25,135. Work commencing May 15. Salford, Lancs.—Following for City Council: Surfacing dressing of approximately 60,000 super. yd. of road surfaces in the City during the current financial year—N. E. Box and Co., Ltd., Altrincham, £1,396; making-up and completing of Osborne Road—James A. Cuss, Rochdale, £1,865; final siteworks on the Trinity estates—Giblin Brothers, Ltd., Manchester, £1,898; supply of 7,100 tons of hot process asphalt during current financial year—Neuchatel Asphalte (Contracting), Ltd., Salford, £24,273 (all recommended). Sheffield.—Following for City Council: Completion of the construction of a service road at the rear of new premises erected in King Street for the Pearl Assurance Co., Ltd.—Direct Labour (recommended). Estimated cost £1,200.

Construction of roads and sewers and miscellaneous site works at the Gleadless.

Direct Labour (recommended). Estimated cost £1,200.

Construction of roads and sewers and miscellaneous site works at the Gleadless Valley estate (area 16a); and culverting work, strengthening of sewers, raising of manhole shafts and the construction of roadway and a sleeper bridge on land between Cat Lane and Blackstock Road, Meersbrook, for a site for controlled tipping—Direct Labour (recommended, subject to Ministry approval). Estimated cost £56,325 and £31,600, respectively.

Sheerness, Kent.—Construction of roads and sewers at housing scheme 7, West Minister, for U.D.C. K. Scott, engineer and surveyor—A. H. Hooker and Sons, Ltd., Leeds, Maidstone, £12,911. Work commencing June 1.

Southwark.—Cold asphalt carpeting of roads during 1961 for B.C.—W. F. Rees, Ltd., 54 Victoria Street, London, S.W.1 (recommended, extension of existing contract). Stoke-on-Trent, \$2stffs.—Making-up of the following roads for City Council: Kemball Avenue, Fenton and William Avenue, Meir—F.H.M. Contractors, Ltd., Brook Lane, Newcastle-under-Lyme, £2,719 and £1,599, respectively: Derek Drive, Sneyd Green—F. I. Williams and Sons (Bucknall), Ltd., 184 Werrington Road, Bucknall, Stoke-on-Trent, £5,714 (recommended, subject to Ministry approval).

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SOUTH WEST AREA 231, High Street, I

Sutton and Cheam, Surrey. — Following for B.C.; Widening of Hill Road—William F. Rees, Ltd., 54 Victoria Street, London, S.W.I, £3,617 (recommended, in lieu of previous tender).

Surface dressing of roads during 1961—W. and J. Glossop, Ltd., 123 East Hill, London, S.W.18 (recommended).

London, S.W.18 (recommended).

Swansea, Glam.—Supply and laying asphalt paving and bituminous macadam road carpets for the period April 1, 1961, to March 31, 1962, for B.C. R. D. Moody, engineer and surveyor—Morton Limeworks. Ltd., West Cross, Swansea, and D. Davies and Son (Dinas), Ltd., Dinas Quarries, Llansawel, Llandeilo.

Wasstead and Woodford, Essay, — Widening

Wanstead and Woodford, Essex. — Widening of trunk road along the High Road boundary of Well's Garage, Salway Hill, for B.C. — Waywarden, Ltd., Waywarden House, 215 Forest Road, London, E.17, £949 (recommended).

### SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Barking, Essex. — Drainage works at Church Road redevelopment for B.C.—W. and C. French, Ltd., 50 Epping New Road, Buck-hurst Hill, £5,590.

Bournemouth, Hants.—Laying of Throop foul sewer and rising main for B.C. E. C. Whitaker, borough engineer—G. J. Furneaux. Ltd., Christchurch, £158,096 Ministry ap-(recommended, subject to

proval). radford, Yorks. — Following for City Council: Drainage work at Back Heights, Thornton—M. M. McEvoy and Son, Ltd., Shipley, £15,492; Preston Street sewer reconstruction and Apperley Lane surface water sewer—Direct Labour. Estimated cost £6,500 and £8,500 (all recommended). Bradford.

Dungannon, Tyrone. — Construction of the ungannon, Tyrone.— Construction of the Killeen sewerage scheme for R.D.C.—
J. McGrath (Dgn.), Ltd., Dungannon, £4,410 (recommended); H. and D. Gray, £4,721; R. J. Campbell (Belfast), Ltd., £5,050; Rory Gormby, £5,231; McGrath and Co. (Gld.), Ltd., £5,250; Donnelly, Connolly and Fee, £5,359; Farans, Ltd., £6,600; Renry Coary, £7,323.

Collingbourn, Kent. — Hollingbourn and Langley sewerage and sewage disposal for R.D.C., comprising the furnishing and laying of about 7,800yd. of 9in. and 6in. spun-iron and stoneware pipe sewers, manholes, Hollingbourn,

ventilators, etc.; about 2,700yd. of 6in. spun-iron pumping mains and the construction of two sewage pumping stations and extensions at the existing sewage disposal works, comprising balancing tank, sedimentation tanks, percolating filters, humus tanks, sludge drying beds, feed, effluent, sludge and top-water pipes, etc., and other appurtenant works. D. Balfour and Sons, consulting engineers, 131 Victoria Street, Westminster, S. W.I.—Marshall Andrew and Co., St. Andrews House, Broadway, London, S.W.I., £102,895. Work has commenced. Leeds.—Following for City Council: Construction of surface water sewers in Church Lane, Meanwood, Stainbeck Lane and Ring Road, West Park.—Fallon (Civil Engineering and Plant Hire), Ltd., Suspension Bridge Works, South Accommodation Road, Leeds, 9, £35,649; filling of Meanwood Goit, ancillary drainage works and construction of Monkbridge overflow—William Pepper and Co., Ltd., Bowcliffe Hall, Bramham, Boston Spa, Yorks, £4,157 (both recommended). Lisburn, Antrim.—Supply and erection of eight rotary distributors for percolating filters at sewage disposal works, New Holland, for U.D.C.—Wm. E. Farrer, Ltd., Crown Works, Wilby Road, Hall Green, Birmingham, 28, £4,572.

Maidstone, Kent.—Supply and erection of two sludge conveyors with rails for the sludge drying beds at Aylesford sewage works, contract H.8, for B.C.—Wm. Jones, Ltd., Westmoor Street, London, S.E.7, £5,570 (recommended).

Manchester.—Following for Davyhulme sewage disposal works extensions for City Council: 415-volt cabling for the pre-aeration and primary sedimentation plant—C. Stanley Tagg, Ltd., Nottingham; provision and installation of intensive surface aeration machinery for the whole stage 1 of the aeration plant—Ames Crosta Mills and Co., Ltd., Heywood, Lancs; return activated sludge pumps and tank emptying pumps for stage 1B—Gwynnes Pumps, Ltd., London; supply and erection of volute blade-type scrapers for the 12 final settlement tanks—Ames Crosta Mills and Co., Ltd., Heywood (recommended).

station; the laying of 350 lin. yd. of 2lin. concrete effluent pipe, mainly inside an existing culvert, and the laying of 1,600 lin. yd. of 5in. diameter rising main to the end of the breakwater, together with sundry ancillary work. Howard Humphries and Sons, consulting engineers, West Street, Epsom, Surrey—J. T. Mackley and Co., Ltd., Harbour Chambers, Shorehamby-Sea, £157,345.

North Witchford, I. of E.—Construction of approximately 3,000yd. of 6in. diameter asbestos-cement or stoneware sewers, 900yd. of 4in. and 5in. diameter asbestos-cement rising main, manholes, house connections, two pumping stations and a sewage treatment works at Benwick, contract 1, for R.D.C. John H. Haiste and Partners, consulting engineers, Belmont House, 20 Wood Lane, Headingley, Leeds, 6—Henry J. Firman, Ltd., Flag Fen, Newark Road, Peterborough.

Salford, Lanes,—Site investigation in connection with phase 2 of the general reconstruction scheme at sewage disposal works for City Council—Simon and Carves, Ltd., Stockport, £987 (recommended).

Sheerness, Kent.—Repair of the existing penstock chamber within a sheet steel cofferdam, alterations to two existing 12in, diameter pumping mains, the fitting of new valves and a penstock, and other ancillary works at West Minster Outfall Pumping Station for U.D.C. Lemon and Blizard, consulting engineers, 59 Tufton Street, Westminster, S.W.1—R. M. Douglas (Contractors), Ltd., 395 George Road, Erdington, Birmingham, 3, £9,985 (accepted); T. T. Mackley and Co., Ltd., £16,863. Work has just commenced.

Mowem and Co., Ltd., £10,80. Work has just commenced.

Sutton and Cheam, Surrey.—Construction of a surface water relief sewer at Morden Way, for B.C.—Tierney and Maguire, 26 Dudley Drive, Morden, Surrey, £5,287 (recommended).

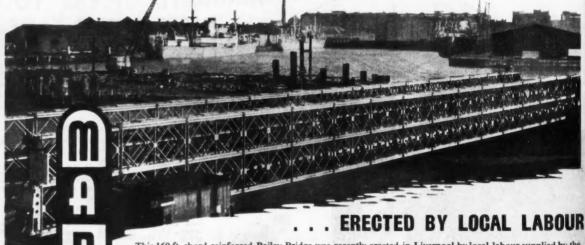
Sutton and Cheam, Surrey,—Construction of a surface water relief sewer at Morden Way, for B.C.—Tierney and Maguire, 26 Dudley Drive, Morden, Surrey, £5,287 (recommended).

Wanstead and Woodford, Essex.—Reconstruction of the Eastern Sewage Disposal Works (stage II) for B.C.—W. and C. French, Ltd., 50 Epping New Road, Buckhurst Hill. £143,235 (recommended, subject to deductions).

tions).

(histon, Lancs. — Sewerage and sewage disposal works at Halewood for R.D.C. Husband and Co., consulting engineers, 388 Glossop Road, Sheffield, 10—Norwest Construction Co., Ltd., Litherland, £285,622. Work commencing soon. Whiston,

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#### STREET LIGHTING

STREET LIGHTING

Epsom and Ewell, Surrey.—Supply of following for the 1961-62 street lighting programme for B.C.—25ft. concrete columns and brackets—Stanton Ironworks Co., Ltd., near Nottingham; 25ft. steel columns and brackets and also lanterns and fittings for the 25ft. columns—General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.

Lid., Magnet House, Kingsway, London, W.C.2.

Littleborough, Lancs.—Supply of 24 concrete group B lighting columns, together with 60-W sodium discharge lanterns, lamps, vacuum jackets and auxiliary gear for U.D.C. Derek W. Allison, engineer and surveyor—Eleco, Ltd., St. Albans, Herts, £478. Work commencing June.

Maidstone, Kent.—Improvements to street lighting during 1961-62 for B.C.—Associated Electrical Industries Lamp and Lighting Co., Ltd., 33 Grosvenor Place, London, S.W.I. £24,873 (recommended).

Manchester.—Supply of special columns and lanterns for street lighting in Crown Square for B.C.—General Electric Co., Ltd., Manchester.

for B.C.—October Detective Co., Edition Manchester.

Rothwell, Yorks.—Supply of capacitors for the year 1961/62, for U.D.C.—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts.

St. Marylebone. — Erection of Group B steel columns and brackets and sodium lanterns for side street lighting for B.C.—O. C. Summers. Ltd., 111-113 York Way, London, N.7, £1,014 (recommended).

Sheffield.—Supply of 600 20ft. concrete lighting columns, complete with brackets during the year ending March 1, 1962, for City Council—Concrete Utilities, Ltd., 11 Albert Square, Manchester, £12 18s. 6d. each (recommended).

#### **GOVERNMENT CONTRACTS**

Admiralty. — Particulars of contracts over £4,000 in value placed by Navy Works Department:

Kent: reconstruction of roads and rail tracks—Bensted Contractors, Ltd., Maid-

stone.
Hampshire: plastering and tiling—H. A.
Boulton, Ltd., Gosport, Hants.
Air Ministry.—Contracts to the value of
£4,000 and over for the week ended
April 28:

April 28:

Building work: Edzell, Brechin (Angus), etc.—R. Pert and Sons, Ltd., Montrose, Angus; Woodbridge, Suffolk—Rogers Bros., Ltd., Felixstowe, Suffolk; Benson, Oxon—F. R. Hipperson and Son, Ltd., Dagenham

Runway construction (extension): Lyne-ham, Wilts.—Hadsphaltic Construction Co.. Ltd., Redhill, Surrey.

Painting work: Upper Heyford, Oxon-F. G. Ilbury and Co., Ltd., Harlington, Hayes, Middx.

Hayes, Middx.
Artificers' work (major services): Daws
Hill, Bucks.—Haymills (Contractors), Ltd.,
Hanger Green, London, W.5.

Mainistry of Finance, Northern Ireland.—Contracts exceeding £250 in value placed during the period April 10 to April 21, inclusive: Construction and completion: R.U.C. Station. Bellarena, Co. Londonderry—I. and H. E. Doherty, Ltd., Bushmills Road, Coleraine.

Station, Bellarena, Co. Londonderty—
J. and H. E. Doherty, Ltd., Bushmills Road, Coleraine.

Erection of drill hut, U.S.C, Bovevagh, Co. Londonderry—R. J. Holmes, Market Street, Limavady.

Builders' work: U.S.C. Drill Hall, Killybrick, Co. Tyrone—T. McCann and Co. Doogary, Omagh.

Supply, etc., motor-driven grass cutters: R.U.C. Stores, Sprucefield—(1) J. E. Coulter, Ltd., 155 Oldpark Road, Belfast, 14; (2) Munster Simms and Co., Library Street, Belfast, 1.

Low pressure hot water heating, etc.: Ministry of Agriculture Entomology Building, Whitewell, Belfast—Musgrave and Co., Ltd., 152 Albertbridge Road, Belfast, 5.

Low pressure hot water heating, etc.: Head Post Office, Downpatrick—Johnston Bros., Main Street, Hillsborough.

Internal cleaning and external painting: Ministry of Commerce, 5-11 Verner Street, Belfast, 7—J. Waugh, 45 Edward Road, Whitehead.

Internal cleaning and painting: R.U.C. Station, Castledawson—J. McCoubrey and Sons, Main Street, Bellfast, 1—Wm. McMillan and Co., 219 Shore Road, Belfast, 15.

Internal cleaning and painting: R.U.C. Station and Married Quarters, Portglenone—J. McCoubrey and Sons, Main Street, Belfast, 15.

Internal cleaning and painting: R.U.C. Station and Married Quarters, Portglenone—I. McCoubrey and Sons, Main Street, Ballymoney.

Erection: U.S.C. Drill Hall, Fintona, Co. Tyrone—R. Wilson Sunnyside, Dromore Road, Irvinestown.

Roadways, field drainage, etc.: Dixon Estate Farm, Stormont—A. O'Neill, Cornavarra, Drumquin, Co. Tyrone.

Low pressure hot water heating, etc.: Radio Workshops, Lislea Drive, Belfast, 9—Johnston Bros., Main Street, Hills-borough.

Alterations and additions: Ministry of Labour and National Insurance Local

Alterations and additions: Ministry of Labour and National Insurance Local Office. Lisburn—Connor and Beattie, Ltd., 45a Mountjoy Street, Belfast, 13.

Ministry of Works.—Contracts placed for week ended April 22: Hertfordshire: Hemel Hempstead—erec-tion of new Head Post Office—E. S. Gates.

Ltd., Chalfont Station Road, Amersham,

Bucks.

Lanarkshire: Joint Office Building, 187
George Street, Glasgow—domestic cleaning.

—British Canadian Maintenance Co., 132
Renfield Street, Glasgow, C.2.
London: British Museum, W.C.2—installation of fuel storage tanks—W. G. Cannon and Sons, Ltd., 38a, St. George's Drive, Westminster, S.W.1; St. Martin's Lane, Trafalgar Square, W.C.2—formation of branch Post Office—E. J. Lacy and Co., Ltd., Steele Road, N.W.10.

Yorkshire: Reid Terrace, Guisborough—erection of automatic telephone exchange—H. Peacock (Guisborough), Ltd., 131
Westgate, Guisborough.

War Department.—Contracts placed for the week ended April 21:
Devon (Plymouth): building — Richard Costain (Construction), Ltd., Plymouth.
Dorset (Bovington): building → Arthur Parsons and Sons, Dorchester.

Gloucestershire (Ashchurch): miscellaneous — John Simmonds (Gloucester).

Hampshire Aldershot): painting—T. H. Kenyon and Sons, Ltd., London, W.9: (Portsmouth): protective Bros. (Civil Engineers), Ltd., Newport, I. of W.
London, S.W.I: painting and decorating—T. H. Kenyon and Sons, Ltd., London, W.9.

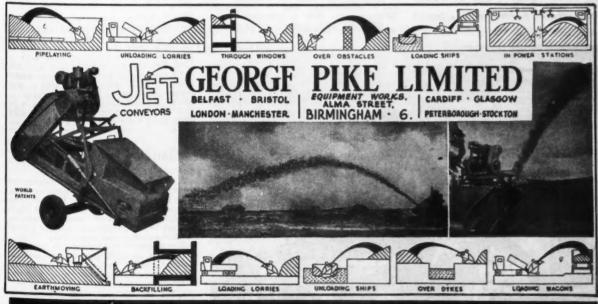
Monmouthshire (Chepstow): Geo. Harris and Co., Hereford.

Shropshire (Donnington): roadwork— L. S. Podmore and Co., Ltd., Walsall. Staffordshire (Marchington): building— Gee, Walker and Slater, Ltd., Derby. Surrey (Camberley): ground clearance— S.M.S. (Airfields), Ltd., Bournemouth.

Post Office. — Contracts for duct laying, etc., works to the value of £4,000 and over placed during the two weeks ended April 29:

April 29:

J. E. Billings and Co., Ltd., 54 Beddington Lane, Croydon, Surrey; C.D.L. Construction Co., Ltd., Church Road, Egham, Surrey; James Cooper (Construction), Ltd., 28 Kensington Church Street, London, W.8; Edmund Gill, Ltd., 24 Ravenscroft Park, High Barnet, Herts.; The North Midland Construction Co., Ltd., Portland Works, Daybrook, Nottingham; The Nortwest Construction Co., Ltd., Litherland, Liverpool, 21; P. J. Parrott and Co., Ltd., Main Street, Methley, Leeds, Yorks.; D. J. Sullivan (Bristol), Ltd., 16 Burlington Road, Redland, Bristol, 6; Alexander Thomson and Co. (London), Ltd., 45a Kensington High Street, London, W.8.



ASPHAL TE · TARMACADAM ROOFING

LONDON - BARROW - BIRMINGHAM - CANTERBURY - EXETER - GLASGOW - LINCOLN - LIVERPOOL - MANCHESTER - NEWCASTLE,

#### Trade and Company News

#### **NEW COMPANIES**

The undermentioned particulars of new companies recently registered are taken from the daily register compiled by Jordan and Sons, Ltd., company registration agents, 116 Chancery Lane, London, W.C.2:—

agents, 116 Chancery Lane, London, W.C.2:—

F. T. Turner and Son Ltd., builders. £2,000. Directors: Reginald R. Turner, Mrs. Norah K. Turner and Peter P. Turner, all of "The Rise," Horam, Sussex.

G. Girling (Burgh Castle) Ltd., Welcome Farm, Burgh Castle, Gt. Yarmouth, demolition contractors. £4,000. Directors: Godfred Gt. Yarmouth; John Northgraves, "Ingate Girling, 3 East View, Beccles Road, Bradwell, Lodge," Cotmer Road, Oulton Broad.

Southern Counties Ready Mixed Concrete Co., Ltd., 31 Kings Road, S.W.3. £100. Directors: John H. Gale, Mead House, Ashley Park Avenue, Walton-on-Thames; Alan K. W. Edwards, Hill Close, Sandy Lane. Cobham, Surrey.

H. Swindells, Ltd., builders. £100. Directors: Herbert Swindells and Mrs. S. K. Swindells, I Crescent Parade, Ripon.

Croft Homes, Ltd., Stoney Stack, Marlow Bottom Road, Marlow, Bucks. builders. £4,000. Permanent directors: Kenneth F. Croft and Dorothy R. Croft, Stoney Stack, Marlow Bottom Road, Marlow, Bucks.

Gravett and Flood, Ltd., 127 Woodcote Road, Wallington, Surrey, builders. £1,000. Directors: Alfred B. Gravett, 127 Woodcote Road, Wallington, Surrey, Edward R. Flood, S8 Bute Gardens, Wallington, Surrey, Archer and Smith, Ltd., Turnball, Chiseldon, Wilts, builders. £5,000. Directors: Frank E. Archer, Beechgrove, High Street, Chiseldon, Wilts, builders. £5,000. Directors: Secil A. Lines, Ltd., 26 High Street, Pinner, Middx, builders. £100. Directors: Cecil A. Lines, 19 Holmdene Avenue, North Harrow (both permanent).

Lines, 19 Holmdene Avenue, North Harrow (both permanent).

Situsec Contractors, Ltd., constructors of roads, railways, etc. £10,000. Directors to be appointed by subscribers.

R. H. V. Dixon (solicitor) and A. G. Staplehurst (clerk), 4 Throgmorton Avenue, E.C.2. Leslie G. Holland, Ltd., builders. £2,000. Directors to be appointed by subscribers. Subscribers: Leslie G. Holland, 388 Valley Road, Nottingham; Iris E. Ward, 12 Wickens Terrace, Southampton Street, Nottingham (secretary).

Terrace, Southampton Street, Procuingmann (secretary). Luxury Living, Ltd., 14 Welbeck Avenue, Hove, Sussex, builders. £100. Directors: Leslie J. Wood. 28 Fairway Crescent, Ports-lade, Sussex; Thomas D. Rose, 14 Welbeck Avenue, Hove, Sussex. Santa Monica Construction Co., Ltd., 3

Luctons Avenue, Buckhurst Hill, Essex, builders. £100. Directors: Stanley W. Cubberley, 3 Luctons Avenue, Buckhurst Hill, Essex; Alan J. Payne, 165 Larks Hall Road, E.4.

Terrapin Hire, Ltd., hirers of portable buildings. £20,000. Directors: Michael F. Pearson. 22 College Hill, E.C.4; Harry C. Bolt; Percy Ashworth. Edward K. Smart and John McKeehnie (addresses not stated). Subscriber: Peter F. Chapman, 22 College Hill, E.C. (clerk).

Fred R. Searancke (Builders), Ltd., Belmont Street, Swadlincote, near Burton-on-Trent. £12,500. Directors: Philip F. Felgate, 161 Ashby Road, Burton-on-Trent; Charles H. Marcer, 240 Burton Road, Woodville, Derbys.; Harold E. Neville.

Ashoy Road, Burton Road, Woodville, Derbys.; Harold E. Neville.

J. Rodgers and Son, Ltd., road rolling contractors. £1,000. Directors: Joshua Rodgers, 10 School Hill. South Crosland, Huddersfield; Harry Rodgers, Hill Top Croft, Netherton, Huddersfield.

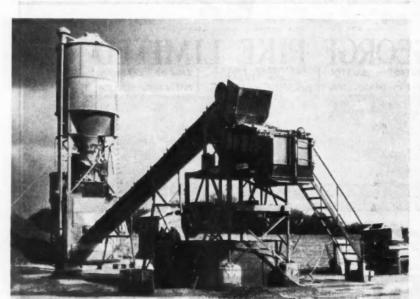
Lemon and Bunker, Ltd., builders. £5,000. Directors not named. Subscribers: Percy O. Ansell and George A. Corderoy, 116 Chancery Lane, W.C.2.

D. A. and C. V. Baker, Ltd., Thwaite House, Carnforth, plant hirers. £1,000. Directors to be appointed by subscribers. Subscribers: Shirley Hart and Averill Hart, Imperial House, Kingsway, W.C.2.

J. W. Horton (Contractors), Ltd., construct and lay-out tracks for sport, etc., £500. Director: John W. Horton and Dorothy Horton, addresses not stated. Subscribers: Mrs. Mavis Darling, 2 Palmer Crescent, Cemetery Road, Dronfield, Derbys.; Ronald Aspinall, 14 Holmley Lane, Dronfield (clerk). Viron Erectors, Ltd., 17 Bourne Avenue, Southgate, N.14, erection and demolition of industrial chimneys. £500. Directors: Ronald A. A. Moynihan and Mrs. V. G. Moynihan, 17 Bourne Avenue, N4; John W. W. Senior, 82 Silvan Avenue, Wood Green, N.22. Ogden Bros. Contractors (1961), Ltd., 11 Ferryfield Road, Chadderton, Wm. E. Ogden, 29 Laurel Avenue, Chadderton.

Royd and Cozens, Ltd., 201a Abbion Street, Southwick builders. £10 000. Pirectors:

Chadderton.
Royd and Cozens, Ltd., 201a Albion Street,
Southwick, builders. £10,000. Directors:
Eddie W. Cozens, 45 Adur Avenue, Old
Shoreham; Darrell K. Suttle, 216 Old Shoreham Road, Portslade; Mabel Cozens, David
Wadey and Josephine M. Sweeney.
A. J. Holcombe and Sons, The Mill, Crowborough, builders. £6,000. Directors: Albert
J. Holcombe and Alice A. Holcombe, The
Mill, Crowborough; Wm. C. Holcombe,
Tablehurst, The Park, Crowborough.



This Barber-Greene Model 824 stabilisation plant, owned and operated by Cementation, Ltd., at their site on the disused Detling Airfield, near Slotbury. Kent, is producing all the lean-mix concrete being used in widening roads in connection with the Medway Towns By-pass. The plant was manufactured by Jack Olding and Co., Ltd., at Hatfield, for Barber-Greene Olding and Co., Ltd., and is the first of its kind to be produced in the United Kingdom. Under favourable conditions, the machine can produce up to 180 tons per hour of stabilised and granular base materials

### News from the Boardroom

[JNSATISFACTORY nuclear contracts are a problem for Babcock and Wilcox, Ltd. Sir Kenneth Hague, chairman, in his annual review says the development work necessary in order to meet the exacting requirements in manufacture for the Hinkley Point and Trawsfynydd nuclear power station contracts and unprecedented labour problems at the site which is power station contracts and unprecedented labour problems at the site, which in a large measure were outside the company's control, had proved most expensive. During 1960 they sustained £650,000 losses on these orders. A provision of £700,000 had been made for further losses which might be incurred on these contracts before they were completed. The company had virtually completed all the components for these two power stations and now had for these two power stations and now had to find employment for the specialised plant at their works until such time as the new contract for the Sizewell nuclear the new contract for the Sizewell nuclear power station reached the shop floor to-wards the end of 1961. "For the Sizewell contract, full account has been taken of the adverse experience at Hinkley Point and Trawsfynydd, both in respect of shop manufacture and erection," Sir Kenneth

ALTHOUGH no dividend has been recom-ALTHOUGH no dividend has been recommended, Myton, Ltd., have been able to report that profit for the year ended December 31, 1960, was £104,328 compared with £77,313 in the previous year. "This can be regarded as not unsatisfactory especially in view of the adverse weather conditions prevalent in the latter part of the year," comments chairman John Hamson HANSON.

FROM George Wimpey and Co., Ltd., comes news of continued success in a year in which the wide range of the company's interests and activities enabled it to withstand the effects of prolonged wet weather at home, continued severe competition and shortage of large-scale civil engineering work. Group profit for the year ended December 31, 1960, after taxation was £1.854,207 compared with £1,510,928 in 1959. In his review for the year, Sir Godfrey W. MITCHELL, chairman, says they have before them the largest volume of work in the history of the company and he is hopeful that another successful year will be the result. FROM George Wimpey and Co., Ltd.,

PORTABLE compressors manufactured by the British and Belgian factories accounted the British and Belgian factories accounted for a considerable proportion of the invoiced sales of the Atlas Copco group of compressed air engineering companies in 1960. The group sales figure at £33,100,000 is a record and represents an increase over 1959 of £6,900,000. The Atlas Copco group comprises a parent company in Stockholm and daughter companies in 28 countries throughout the world. Its sales have more than doubled in the past six years.

### STABILISED POWER SUPPLY BY ROTAX

A new 30v. 3A fully transistorised power supply unit has been developed by Rotax Ltd., Chase Road, London, N.W.10. One of its features is a new filter circuit which enables the number of transistors used to be kept to a minimum, resulting in greater simplicity and overall reliability.

The stabilised voltage output is variable from zero to maximum, overall stability factor 1: 1,200, and D.C. resistance less than 0.01 ohm. Adjustable overload protection is provided.

#### ARROW HYDRAULIC HAMMER

Lemand Machinery, Ltd., Rowsley, Derbys., have been appointed sole U.K. agents for the Arrow hydraulic hammer, made by Arrow Manufacturing Co., Denver, Colorado. Powered by a diesel engine, the hammer can be driven at a speed of 25 m.p.h., and my be fitted with a variety of cutting or tamping heads.

#### Trade and Company News

### LARGEST CONCRETE POUR ON A BUILDING SITE IN SINGLE DAY

DURING the hours between 7.45 a.m. and 7.30 p.m. on a recent Saturday, Ready Mixed Concrete, Ltd., supplied and delivered a total of 1,185 cu. yd. of ready mixed concrete to the new Lon-don Hilton Hotel, now being erected in

Park Lane by Token Con-struction Co., Ltd.

struction Co., Ltd.

To achieve a single pour of this quantity without interruption to the supplies of other customers, Ready Mixed Concrete combined part of their outputs from three of their London plants. Deliveries were made in truck mixers with carrying capacity ranging from 3 to 6 cu. yd. and throughout the day supplies of concrete were arriving at 2½-minute intervals.

The truck mixers, standing

minute intervals.

The truck mixers, standing in the roadways 60ft, above the level of the foundation base being formed, discharged the concrete via their own extension chutes into flexible metal trunking which carried the concrete to the lower level. Wire guides were used to manipulate the outlet of the trunking in order to achieve correct placing. To assist in transporting concrete to the central area of the base, the trunking discharged into two controllable hoppers which in turn discharged onto two controllable noppers which in turn discharged onto two conveyor belts, stop guides be-ing positioned as required to enable concrete to pour into further trunking for precise

placing.

A traffic manager was stationed at the site whilst the pour was being made, his

duties being to ensure that each truck dis-charged and returned to its plant within five minutes from time of arrival. The operation is believed to the largest concrete pour in this country on a building site of this type to be completed as scheduled in a single day.



Pouring in progress

### COMPANY TO SPECIALISE IN LIFT SLAB METHOD OF CONSTRUCTION

THE resources of the structural division of Rubery, Owen and Co., Ltd., and Kleine Reinforced Concrete, Ltd. have been combined in the formation of a new company, Owen-Kleine Struc-tures, Ltd., which will specialise in the development of a system of lift slab construction applicable to multi-storey buildings. The technique uses struc-tural steel stanchions with reinforced concrete floors and roof.

Under this method, the structural steel stanchions are erected to the full height of the building by traditional methods on prepared foundations as in normal construction. The stanchions which will normally be universal columns have adequate temporary horizontal ties and cross bracing to give stability during the the lifting of the slabs. There are no permanent steel beams.

After the first stanchions are plumbed the ground floor slab is laid and the top surface of this is treated with a liquid which acts as a separating medium. Shuttering is then fixed around the perimeter of the next slab which is cast between four columns, leaving small margins between each adjoining slab.

Mild steel shear connectors which pro-vide the means of connecting the slabs to the stanchions are embedded in the four corners of each slab and attached to the

reinforcement. Each successive slab is then cast on top of the one below, until all are completed. When the top slab is cured the lifting can commence.

The lifting mechanism consists of an overhead crane on a gantry supported by steel beams on stub columns attached to the main stanchions. This allows for clearance for lifting the roof slab.

The crane comprises two independent crabs incorporating twin drums operated by synchronised motors. These crabs can travel across the gantry and are adjustable to

across the gantry and are adjustable to accommodate various grid sizes. Two cables are lowered from each crab onto two lifting beams of channel section on opposite sides of each slab. The beams have plate hooks at each end to lift under the shear connectors.

Each slab is lifted to its respective position, the roof slab being lifted first and so on down to the first floor. The slabs are connected to the columns via the shear connectors which are bolted to the columns at each floor level. After the connection of the slab to the column the lifting beam is lowered down to the next slab.

is lowered down to the next slab.

When the slabs are in position the margins between slabs are filled with in-situ concrete.

The headquarters of Owen-Kleine Structures, Ltd., is at Darlaston, Wednesbury, Staffs., and the London office is at 9-13, George Street, W.1.

#### SYKES' RANGE OF VERTICAL SELF-PRIMING PUMPS

NEW versions of the range of electrically Dew versions of the range of electrically operated vertical spindle self-priming pumps now being produced by Henry Sykes, Ltd., of Southwark Street, London, S.E.I., for sub-level operation, include improved impeller design and an extensive use of spheroidal graphite iron to eliminate electrolytic effects arising from the use of dissimilar metals for such parts as impeller. dissimilar metals for such parts as impellers

dissimilar metals for such parts as impellers and wearing plates.

The range, which includes units of 2in., 3in., 4in., and 6in., suction and delivery, meets a particular demand where it is necessary to keep a sub-level working floor as free as possible of equipment. Thus by mounting the pump at some distance above the floor level, ample head room can be obtained whilst retaining the selfabove the floor level, ample head room can be obtained whilst retaining the self-priming characteristic of a high capacity, high lift pump, leaving only a suction hose to sump which may be flexible and light to manoeuvre to any required position. In these pumps, a totally enclosed fan cooled, weather-proof, high starting torque,

cooled, weather-proof, high starting torque, low starting current induction motor operating on 400/440 volts, 3-phase 50-cycle supply is direct coupled to the vertical spindle of a self-priming pump, the self-priming effect being achieved by the recirculation method. The unit is slung in a cradle formed by the twin delivery branches of the pump which unite above the motor in a flanged Y-piece to which may be fitted a gate valve. The pump impeller is of the open type, allowing the passage of slurries of high solids content and the volute is fitted with renewable wearing plates. The shaft is fitted with a renewable, hardened, sleeve and is carried in large diameter ball races.

races.

The capacities of the range extend from that of the VSP2, a 2in. unit which has an output of 6,000 g.p.h. against a total head from all causes of 90ft, and 4,000 g.p.h. at 100ft. to that of the VSP6, a 6in. pump which handles 50,000 g.p.h. at 70ft. total head and 30,000 g.p.h. at a 90ft. total head. The overall dimensions range from a length of 1ft. 9in., a width of 1ft. 7in. and a height of 4ft. 9in. for the VSP2 pump to a length of 3ft. 4in., a width of 2ft. 6in. and a height of 8ft. 8in. for the VSP6 pump. The weights for these two units of the range are 6½ cwt. and 27 cwt, respectively.

#### RANGE OF SLIP-RING MOTORS

A new range of slip-ring motors is announced by Crompton Parkinson, Ltd.

announced by Crompton Parkinson, Ltd.

They are now available:—(1) As continuous maximum rating with drip-proof enclosure up to 10-h.p. 4 pole speed, suitable for applications where the use of squirref-cage motors is not practicable and for operation on 3-phase 50 cycles. (2) As KRN class, suitable for use with cranes and lifts, 4hr. or 1hr. rated up to 15-h.p. 4 pole speed, with drip-proof or totally-enclosed endshields.

Both types of motor can be wound for

enclosed endshields.

Both types of motor can be wound for voltages between 100 and 600 volts. Larger frame sizes are in production carrying the range up to 30-h.p. and 40-h.p.

All motors comply with BS.2613: 1957 for performance and have fixing dimensions and shaft sizes as those standardised in B.S.2960: Part 1: 1958 for the frame size used. The horse-power assigned to these frames is one step lower than the equivalent squirrel cage machine listed in B.S.2960.

#### PERKINS' EXHIBITION CANCELLED

The Perkins Group have cancelled their Power by Perkins" exhibition scheduled to take place at Brands Hatch from June

A company spokesman said that the decision had been taken because an extension of earlier bookings at Brands Hatch had made is impossible to stage the exhibition in the limited time available on the scale planned.

# Talking of Safety "DRAGEE"

THE cartridge tool has now become an accepted part of the builder's equipment, but it is not generally realised that the forerunner of the modern tool was first produced in this country during the first World War. There was also a contemporary invention which employed an explosive charge inside a specially designed rivet, in order to cope with situations where access to the rivet head was difficult or impossible.

These ingenious devices, however, attracted only a modest amount of attention, and it was not until the end of the last war that the value of the cartridge tool became widely recognised. Unfortunately, its popularity brought with it a new hazard and a resulting crop of accidents, and it soon became obvious that people would have to start thinking very hard about safety precautions if it were to escape drastic restrictions or even total prohibition. It is good to record that the best of today's tools enjoy a high standard of built-in safety; what is needed now is an equally high standard of competence on the part of the persons who use them.

My first aquaintance with the technique These ingenious devices.

My first aquaintance with the technique of power-fixing was made abruptly during a summer afternoon in 1948. The men were having their tea-break and I was were having their tea-break and I was sitting quietly in my site office studying a drawing. After the prolonged roar of several pneumatic picks in the vicinity, everything seemed very peaceful. I can remember remotely hearing a skylark twittering in the blue expanse above the raw earth of the site.

Suddenly there came a violent knocking on the door, and as I rose in alarm, the door burst open and a small black-bearded figure staggered through the opening with a heavy metal case. He put it down with a crash, then took off his glasses, steamy with exertion, and carefully wiped them with a red silk handkerchief.

"Iss very hot," he announced in a strong German accent. "My name is Flugge." Dragee," who is a practising safety

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—Entor.

You are the agent, yes? Please, I wish to show you this hammer."

While he spoke he struggled with the fastenings of the mysterious steel box, and eventually produced a lethal-looking object which he proceeded to load with a cartridge and a slender steel bolt. He placed the muzzle against the brick wall and pressed the trigger. Bang! The room was filled with smoke and the end of the bolt was seen to be projecting from the wall. The black beard parted and there issued a chuckle of pleasure.

"That iss for your hat," he said merrily. "Now we find the concrete."

merrily. "Now we find the concrete."
We found the concrete and two more shots were fired.
"What is all this about?" I demanded.

The beard sagged. "You have not heard I am comink? Then I give you some interesting papers."

On the way back to the office Herr Flugge paused to shoot two more bolts; one into a joist, the other into a reinforced concrete stanchion. The second one ricochetted and flew past Flugge's head, snipping out a small piece of his left ear as it went. We treated him at the first-aid station, and sent him sadly on his way, metal box and all. We heard nothing further of him.

further of him.

Ricochets have always been one of the major hazards of cartridge tools. They are usually caused by the projectile encountering irregularities in the medium into which the bolt or pin is being fired—hard stone or steel reinforcement for symple. Modern tools are fitted with a example. Modern tools are fitted with a shield which protects the operator from this kind of danger, but there is still a measure of risk to fellow workers nearby. Indeed, accidents involving other persons are probably the most difficult to control. are probably the most difficult to control. Many of these are caused through a bolt or pin being fired right through a partition and striking a person on the other side. Recently a new type of tool has appeared on the market which appears to minimise this danger by interposing a captive piston between the powder and the head of the projectile, this being equivalent, in effect, to an exceedingly powerful hammer-blow. The projectile leaves the tool with almost zero energy. zero energy.

Careful use of any cartridge tool is of vital importance if accidents are to be

avoided, but initially the design and quality of the tool and projectiles are the most important safety factors. Manu-facturers recognise that incorrect handling most important satety factors. Manufacturers recognise that incorrect handling must always be a possibility, and the design must take this into account. A first-class tool will prevent the projectile from being fired unless the tool is held against a rigid object with a pressure of not less than 201b. and only then when it is within six degrees of perpendicular to the surface. The protective shield must provide effective protection not only against a ricochetting projectile, but also against flying fragments of material. Injury is sometimes caused by excessive recoil and even by the effects of noise, and these should be kept to a minimum. I used to advocate the use of ear-defenders by the operator until I heard of an incident where the operator's staging caught fire and he failed to hear a warning shoul because he was wearing ear-muffs!

#### BRITISH CAST CONCRETE **FEDERATION**

Mr. E. F. Wettern (Mono Concrete Co., Mr. E. F. Wettern (Mono Concrete Co., Ltd.) was elected chairman and Mr. S. Browning (Trollope and Colls, Ltd.) vice-chairman, at the recent annual general meeting of the British Cast Concrete Federation. Re-elected as president and vice-president were Mr. R. H. Bates and Mr. E. L. Cotterell, respectively.

At the annual luncheon of the Federation, Mr. Leo. Russell, director of the Cement and Concrete Association, said that Cement and Concrete Association, said that looking to the future one of the most important developments from the point of view, not only of the concrete products industry but of the whole of the construction industry, was the large walling unit, both for loadbearing and for cladding. At the moment these seemed to be going ahead rather faster in other countries than over here—notably in Denmark, France and Russia.

#### "DESIGN OPPORTUNITIES IN TIMBER"

A course on "Design Opportunities in Timber" will be held at the York Institute of Advanced Architectural Studies, from September 15-19, 1961. Being organised in conjunction with the Timber Development Association, the course is planned to give architects, surveyors and builders the latest information on recent international developments and design possibilities in the use of timber as a structural material; and its functional, aesthetic and economic advantages.

The tuition fee for the course is £8 8s. Full details and application forms can be obtained from the Secretary, Institute of Advanced Architectural Studies, Micklegate, York.

#### **BOOK REVIEWS**

Official Architecture and Planning Year Book, 1961. Publishers: Anstey Press. Ltd., 15-17 City Road, London, E.C.l. 208pp. Price 15s. The aim of this annual reference book

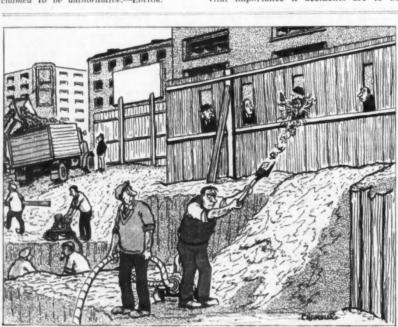
is to provide the names of those executive officers responsible for architectural and town planning matters in government departments, local authorities, statutory undertakings and private firms in the United Kingdom.

United Kingdom.

Of particular interest to architects and planners is the section dealing with institutions and associations directly or indirectly connected with those professions. A brief account of the exact functions of these organisations is given, with a description of the qualifications required for membership of the professional institutions.

Appendices contain the names and

Appendices contain the names and addresses of the surveyors to metropolitan boroughs and quick-reference lists of county boroughs in England and Wales and large burghs in Scotland,



### TAYLOR WOODROW'S 1,000th HOUSE FOR are actually in line with the neighbouring pair. Some of the linking screen walls follow angled or zig-zag patterns. SMITH'S ORGANISATION

### Stage by Stage Developments at Three Estates

THE 1,000th house for employees of the Smiths organisation, (S. Smith and Sons (England) Ltd.,) has recently been completed by Taylor Woodrow

Homes Ltd.

This was one of the last of 460, mainly semi-detached, houses on a self-contained estate at Windrush Valley, Witney, Oxon. Earlier estates were one of similar size at Bishops Cleeve, near Cheltenham, and a smaller one near Basingstoke, Hants. Each has been developed in stages as homes were needed, the initial scheme being 76 houses built at Bishops Cleeve in 1948. A

start is about to be made on a further 60 houses at Cheltenham. The architects for the whole project have been T. P. Bennett and Son of London.

Care has been taken, both in layout of the estates and the planning and equipping of houses, to provide moderately priced homes with the best possible amenities. At Windrush Valley roads, within which the houses are contained, divide an area of about 50 acres into four main irregular shapes. Further variation is provided by cul-de-sacs and grassed areas, with additional privacy for tenants by the staggering of frontages, so that few pairs of houses

The 1,000th house (left), its exterior finish of cement paint contrasting with those in the background of brick facings

#### TRAFFIC ENGINEERING STUDY GROUP

#### "Ulster Can Lead the World"

SIR HERBERT MANZONI, president of the Institution of Civil Engineers, speaking at a recent dinner in Dunmurry, Belfast, told members of the Northern Ireland branch that if they had the courage, were prepared to spend the money and allot it in the right places, then Northern Ireland could be ahead of the world in meeting traffic problems.

He was commenting on the decision taken at a meeting of the Association in Belfast earlier in the day to set up a traffic engineering study group in Northern Ireland

"I think you would be very wise to make a start here." Sir Herbert said. "If you do, you will be ahead of us because our traffic is much more intense than yours and, therefore, you will get a little time in hand in providing a solution.

"But it is no good doing this unless someone is prepared to carry out the someone is prepared to carry out the schemes which you suggest. Every country in the world is well behind with this problem. New York, where they have spent many millions of pounds on roads, is perhaps the control of the problem. haps the worst.

"If it is proposed to tackle this matter in a big way, as it will have to be if you are dealing with high intensity traffic, which has not yet come to you in Northern Ireland, but which will come, you must

popularise the methods which you wish to adopt in the eyes of the public, for if they do not approve of it you cannot use it."

Here, he said, the public had very often not liked one little bit the plans of traffic engineers, whereas in America the public were now so used to traffic restrictions that took in their stride whatever imposi-were imposed. It was important to set the climate for the restrictions and expenses necessary as traffic increased.

#### **BIG ATTENDANCE AT RAILWAY** CONFERENCE

More than 1,000 engineers and members of railway management from home and overseas attended the two-day Railway Modernisation Conference, held at the Institution of Civil Engineers in London

last week.

Twenty-five overseas countries were represented. From Australia there were eight delegates; France and the Netherlands were each represented by six members. Other countries represented were: Belgium, Bolivia, Canada, Chile, E. Africa. Eire, Western Germany, Hong Kong, India, Iraq, Israel, Malaya, Mexico, New Zealand, Northern Ireland, Pakistan, Peru, Portugal, S. Africa, Sweden, Switzerland, Thailand and the United States of America.

#### Shopping Area

The focal point of the road system is a shopping area, off-centre on the eastern, or Witney, side of the estate. It comprises 12 shops, set in two lines, with additional housing accommodation in 12 maisonnettes and two flats. The centre lies behind an open space, and a church hall and a public house are under construction. struction.

struction.

The policy of variation has been followed in the design of the houses, which have three main types of exterior finish; cedar board panelling, tile hanging or brick facings. In some cases, cement paint has been substituted for the brick facings. The flush doors, which have glass panelling alongside, are accompanied by either canopied or recessed porches. Ample windows are another feature. Provision has also been made for the accommodation of a motor car for each householder on the Witney estate. Witney estate.
Interior treatment is contemporary. The

Interior treatment is contemporary. The houses are of two- and three-bedroom types, with upstairs bathrooms. Some have separate dining and living rooms, others a large dining-living room combined. All have a back boiler water heating system, and some have been fitted with the Smiths oil-fired boiler.

The estate, off the main A.40 road and built for the Windrush Valley Housing Association, is for employees of the Smiths Motor Accessory Division, whose factory is nearby, but does not adjoin the estate.

#### Civic Trust Award

Developed on similar lines, the estate at Bishops Cleeve, near Cheltenham, received the commendation of the Civic Trust Amenity Awards Scheme for 1956 to 1959, for its contribution to the Gloucestershire scene. It was built for the Bishops Cleeve Housing Association and is occupied mainly by employees of S. Smith and Sons (England), Ltd., whose aviation instruments and watch factories are nearby. Some houses were allocated to nominees of Cheltenham Rural District Council. Council.

Council.

At Basingstoke the estate, for the Kelvin Hughes Housing Association, is for employees of the Kelvin Hughes aircraft instruments factory there.

#### LONDON AGENT APPOINTED BY IRAN CONTRACTOR

Mr. R. A. Khorram, chairman and managing director of Asphalt Rah Co., Ltd., of Teheran (Ave. Takhte Jamchid, rue Becharate) has set up a London office and appointed C. J. Fox and Sons, Ltd. (managing director, Mr. B. O'Connor), 117 Victoria Street, S.W.l, their managing agents in Great Britain.

Asphalt Rah are about to complete the

Asphalt Rah are about to complete the international airport at Abadan; and have been invited by the Iraqi Government to tender for the international airport at Baghdad. Mr. Khorram was recently in London discussing the erection in Iran of a steelworks, printing works and plastics plants, also the purchasing of material for Baghdad Airport.

#### MARCH HOUSING FIGURES

The number of permanent houses completed in Great Britain during March was 25,916 (compared with 24,953 in March, 1960) of which local authorities were responsible for 10,803 and private builders for 14,444. In the first three months of 1961, 69,056 houses were completed (compared with 66,476 in the same period last year).

At March 31, local authorities had 142,795 houses under construction, and private builders had 130,226 (compared with 143,247 and 126,799, respectively, at December 31 last).

### N.F.B.T.E. REPRESENTATION ON GOVERNMENT **BODIES AND JOINT BOARDS**

#### List of Elected Members

THE Council of the National Federation of Building Trades Employers has selected the following members to serve during 1961 as representatives of the Federation on the various Government bodies and joint boards and committees concerned with building matters.

concerned with building matters.

Ministry of Works' National Consultative
Council of the Building and Civil Engineering
Industries: F. Russon (Birmingham), L. A.
Walden (Henley-on-Thames), and P. E. Trench

Walden (Henley-on-Thames), and F. E. Arthur (London).

Ministry of Labour and National Service's Joint Advisory Committee on Safety and Health in the Building and Civil Engineering Industries: L. A. Walden and P. E. Trench. National Joint Consultative Committee of Architects, Quantity Surveyors and Builders: G. W. Grosvenor (Bath). H. G. Frost (Bury St. Edmunds). N. Hannen (London). T. V. Prosser (Liverpool), F. Russon, L. A. Walden, and D. E. Woodbine Parish (London).

Architects Registration Council: D. E. Woodbine Parish.

Woodbine Parish (London),
Architects Registration Council: D. E. Woodbine Parish,
Board of Building Education: H. G. Frost,
R. O. Gerrard (Manchester), W. K. Laing
(London), D. E. Woodbine Parish, T. V.
Prosser, A. C. V. Telling (Bristol), and T. H.
Huxley Turner (Cardiff),
British Employers Confederation: Council—
G. W. Grosvenor, N. Hannen, L. J. Holloway
(London), N. Longley (Crawley), D. E. Woodbine
Parish, T. V. Prosser, F. Russon, P. E.
Trench; L. A. Walden; General Meeting—
D. M. Chaston (Hoddesdon), L. J. Holloway,
W. S. Jones (Maidenhead), D. E. Woodbine
Parish, J. Ian Robertson (Burton-on-Trent),
F. Russon, L. A. Walden; Safety, Health and
Welfare Committee—L. A. Walden; Social
Insurance and Employers Liability Committee
—E. R. Bowyer (Sough); Industrial Education
and Training Committee—M. Hannen; Employment and Manpower Committee—G. W.
Grosvenor; Taxation Committee—M. J. Pelham
(London); Road Transport Committee—N.
Hannen; Special Committee—N. J. Pelham
(London); Road Transport Committee—N.
Hannen; Special Committee on Wages and
Conditions—F. O. Jayne.
Federation of British Industries: A. R. Mais
(London) and C. G. Rowlands.
British Road Federation: N. Hannen.
British Standards Institution: Building Divisional Council—H. E. Comben (London) and
W. K. Laing.
Building Advisory Service Committee of

W. K. Laing.

Building Advisory Service Committee of
Management: G. W. Grosvenor, N. S. Farrow
(London), R. O. Gerrard, W. S. Jones, N.
Longley, J. Ian Robertson and P. M. Shepherd

(York).

Building and Civil Engineering Holidays
Scheme Management, Ltd.: Board of Directors

N. Longley. F. Leslie Wallis (Maidstone).
P. E. Trench: members of the company—
D. M. Chaston. W. S. Jones, H. Leighton
(London), Sir Robert Lloyd (Bromborough). N.

Longley, J. Ian Robertson, C. G. Stirk (Leeds), A. Tomlinson (Leyland), P. E. Trench and F. Leslie Wallis.
Building Industries National Council: G. W. Buchanan (London), W. H. Forsdike (Sheffield), W. Horsfall (Liversedge), J. Ian Robertson and P. E. Trench.
City and Guilds of London Institute: Representative member—F. Russon; consultative Committee—H. G. Frost and D. E. Woodbine Parish.
Loint Contracts, Tribunal: E. R. Bowyer.

ne Parish. Joint Contracts Tribunal: E. R. Bowyer, . C. F. Foster (London), N. Longley and T. V.

Joint Contracts Tribunal: E. R. Bowyer, K. C. F. Foster (London), N. Longley and T. V. Prosser.

Liaison Committee with the Building Research Station: C. D. Calverley (Leicester), H. E. Comben, N. S. Farrow (London), W. K. Laing and Sir Robert Lloyd.

Liaison Committee with the Federation of Civil Engineering Contractors: F. Russon, D. M. Chaston, L. J. Holloway, W. S. Jones, D. E. Woodbine Parish, J. Ian Robertson and L. A. Walden.

National Joint Council: L. A. Walden, H. G. Frost, N. Hannen, F. Leslie Wallis, P. E. Trench, A. W. Birch (York), G. W. Grosvenor, L. J. Holloway, C. P. Howells (Caerphilly), W. S. Jones, Sir Robert Lloyd, K. Taylor (Rochdale), W. S. Thompson (Northallerton), C. E. Wadley (Colchester), M. van Westerborg (Uxbridge) and F. Wootton (Walsall).

National Joint Apprenticeship Board: H. G. Frost, F. Allard (London), J. E. Austin (London), G. A. Hill (London), Sir Robert Lloyd, P. H. P. Lovell (Gerrards Cross), D. E. Woodbine Parish, K. J. Pearce (London), Ald. H. Pickles (Halifax), H. Snow (Liverpool), A. C. V. Telling and F. Wootton.

Standing Joint Committee for the Standard Method of Measurement of Building Works: L. A. Walden, G. E. Beard (Swindon), R. E. I. Carlyle (Manchester), S. T. Firth (Doncaster), K. C. F. Foster, E. T. Sermon (Nottingham), and C. E. Westerman (London).

National Advisory Committee for the Training of General Foremen: D. E. Woodbine Parish, W. T. Booth (Bradford), N. Hannen, G. I. Orchard (Stroud), Ald, I. W. Owen (Stockport), C. E. Wadley, R. W. Whittington (Southampton) and F. Wootton.

Employeers' and General Foremen's National Joint Advisory Committee: N. Hannen, W. T. Booth, T. S. B. Coats (Swansea), R. G. Finlay (Sunderland), G. I. Orchard, H. S. Oddie (Preston), J. B. Tomkinson (Liverpool), D. E. Woodbine Parish, M. J. Youngs (Norwich), R. W. Whittington and F. Wootton.

Timber Development Association Council: G. W. Grosvenor.

R. W. Whittington and F. Wootton.
Timber Industries Confederation: G. W.
Grosvenor.
Timber Development Association Council:

G. W. Grosvenor.
Liaison Committee with B.I.D. and B.M.P.:
F. Russon, D. H. Chaston, L. J. Holloway,
W. S. Jones and D. E. Woodbine Parish.
Royal Society for the Prevention of Accidents: L. A. Walden.

#### REQUISITES OF GOOD COMMERCIAL INFORMATION

A TTENTION will be directed to the requisites of good commercial information at this year's Building Exhibition, to be held at Olympia from November 15-29. This will be the first opportunity for a full scale introduction to the industry as a whole of SfB classification after its publication by the PLEAT The them.

a whole of SfB classification after its publication by the R.I.B.A. The theme of improved technical information has been receiving a good deal of attention in the last few years and much useful work has been done. The Building Exhibition or ganisers' however, believe that the vital importance of good information on commercial products has been neglected.

#### Working Party on Trade Literature

A working party was called by The Building Exhibition to which they invited Egil Nicklin from Finland, the chairman of the SfB Committee; Ingvar Karlen from Sweden, the well-known expert on this sub-ject and John Brunton, A.R.I.B.A., the author of technical papers on the subject whom they have commissioned to co-ordinate the theme at the 1961 Building Exhibition.

Exhibition.

This working party discussed the properties required of good trade technical literature as distinct from trade prestige literature. The working party also analysed the essential differences between products and services and the similarity of the needs of various users. The advantages of the A4 size paper, 11½in. by 8½in. or 297 by 210 m.m., and the pre-classification with the SfB system were endorsed.

Representatives from the following organisations attended a conference on the second day:—the Ministry of Works, the Royal Institute of British Architects, the Royal Institution of Chartered Surveyors.

Royal Institute of British Architects, the Royal Institution of Chartered Surveyors, the National Federation of Building Trades the National Federation of Building Trades Employers, the National Federation of Builders and Plumbers Merchants, the National Council for Building Material Producers and the Federation of Specialists and Sub-contractors, as well as Dargan Bullivant who is producing the SfB Filing Manual for the R.I.B.A.

The conference noted data of all requirements compiled by the working party at the request of the organisers of the Exhibition. The conference further recom-

at the request of the organisers of the exhibition. The conference further recommended that exhibitors, in preparing their trade literature, should conform as far as possible to this data; that A4 size paper should be used and that where preclassification by exhibitors is employed, which is desirable, the SfB system should be used. Literature presented in this way would also be more acceptable overseas and would be a valuable help in the export of British materials and machinery. of British materials and machinery.

#### L.M.B.A. COMMENDED FOR SAFETY ACTIVITIES

In awarding the Sir George Earle trophy for 1961 to John Laing Construction Ltd. the National Executive Committee of the Royal Society for the Prevention of Accidents commended the endeavours of the London Master Builders Association in the Sold of society in Prevention It expressed the hope that these endeavours would continue for the future safety of the construction industry.

This is the first time since the award of the trophy that the adjudicating panel has made this special commendation.

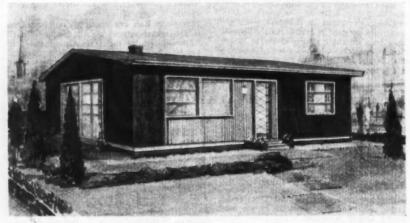
made this special commendation.

#### PROPOSED NEW TOWN Minister to Hold Public Inquiry

Mr. Henry Brooke, Minister of Housing and Local Government, has appointed Sir Richard Manktelow to hold a public local inquiry into objections he has received to the draft order designating 4,029 acres of land at Skelmersdale, Lancashire, as the site of a new town.

of a new town.

The inquiry will commence at the Town
Hall, Sandy Lane, Skelmersdale, on May 31.



The latest addition to the Swiftplan range of timber buildings is a two-bedroomed bungalow, the first of which is to be used as a travelling exhibition for a display of the Coal Utilisation Council approved appliances and central heating, touring the North Midlands from May to November. Designed in collaboration with the British Columbia Lumber Manufacturers' Association, the bungalow uses Canadian wood throughout, and will be marketed by Swiftplan (a member of the Taylor Woodrow group). The photograph shows an artist's impression of the bungalow

# FOOTBALL STAND WILL SEAT OVER 10,000 SPAIN: A CHALLENGE AND AN

# SPECTATORS UNDER COVER

# Sheffield Wednesday's Current Development

THE new north stand, now being erected at Hillsborough for Sheffield Wednesday Football Club, will seat over 10,000 spectators under cover when completed.

It will be 362ft. long by 108ft. wide and the 48 rows of seats will have a rise from front to back of the stand of

over 50ft. Every seat will have a completely unobstructed view of the whole playing pitch as there are no columns be-tween the spectators and the

The roof of the stand, which will be sheeted in aluminium, will be supported by steel girders cantilevered from the back of the structure and projecting 16ft. beyond the front row of seats to provide protection from driving rain. The height of the roof is 60ft, and it is 124ft. deep.

The terraces supporting the seats are constructed of pre-cast concrete units resting on a reinforced concrete sub-structure, except in the upper part where the steel roof girders are turned back under the stand to support both the roof and seating units.

Access to the terraces will be from two levels, one at road level and one at 12ft. above the road, communicating by an elevated walkway with curved ramps at both ends to provide direct access from the turnstiles.

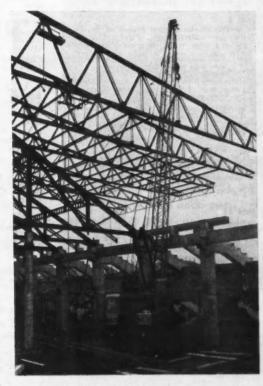
Modern lavatory and Modern layatory and re-freshment facilities will be ac-commodated below the stand. A central floodlighting tower will rise from the roof with supplementary lamps on the

The total amount of structural steelwork is about 500 tons and all major

joints are connected by high strength

Dolts.

The general contractors for the stand are George Longden and Son Ltd., of Sheffield. The consulting engineers are Husband and Co.



Mobile Lifting Services' 25-ton lorry-mounted crane holding the cantilevered upper section of a roof member in position while it is being secured by bolts

# £30M. PLAN FOR LIVERPOOL CITY CENTRE

Approval in principle has been given by Liverpool City Council's Redevelopment Sub-Committee to a plan by City and Central Investments, Ltd., for the redevelopment of a 21-acre site in the centre of the city, at a probable cost of about £30 million

£30 million.

A feature of the scheme is that the whole of the 21 acres would be completely free of vehicles at pedestrian level, a plateau with shops being built above the

The architects for the scheme are Stephenson, Young and Partners, Bluecoat Chambers, School Lane, Liverpool, 1.

# TIMBER ENGINEERING COURSE FOR LECTURERS

A course on timber engineering will be held at the Department of Civil Engineering (University of Durham), King's College, Newcastle upon Tyne, from July 17-21, 1961

The course, which has been arranged b The course, which has been arranged by the Timber Development Association, will include a site visit and demonstrations, as well as lectures. Further information can be obtained from Mr. A. J. Browning, North-Eastern Regional Officer of the T.D.A., at 18 Park Row, Leeds, 1. (Leeds 27256.)

# **BUILDERS BENEVOLENT** INSTITUTION DINNER

The 101st annual dinner of the Builders Benevolent Institution was held recently with the president, Sir Robert Lloyd, in the

The toast to the Institution was proposed by Lord Bossom, the guest of honour, who said that in spite of the activities of the Welfare State, there was still a very real need for charities such as the Institution. He wondered whether the activities of the

He wondered whether the activities of the Institution were too concentrated in London and he hoped that its spread through the country would continue.

Replying, the president said that in response to his appeal a total of £1,600 had been received. The Institution needed £5,000 and he made a further appeal for money to reach this figure.

The toast to the guests was proposed by Mr. R. F. Mansell, president of the L.M.B.A., and responded to by Mr. Frank Russon, president of the N.F.B.T.E.

# **BUSBAR TRUNKING CONTRACT**

The Tube Investments subsidiary, The Power Centre Co., Ltd., Wednesbury, have received a £90,000 contract from Ford Motor Co., Ltd., for busbar trunking for their new plant at Haleswood, Lancashire.

# **OPPORTUNITY**

THE report of the F.B.I. delegation to Spain in February, 1961, has now been published and is entitled "Spain: A published and is entitled "Challenge and an Opportunity."

Challenge and an Opportunity."

The visit was in response to an invitation from the Consejo Economico Sindical Nacional, which sent a party of high-level industrialists to the United Kingdom in April 1960. The objects of the visit were to study the Spanish economy in the light of the recent stabilisation plan; to examine the possibilities for increasing Anglo-Spanish trade and how the U.K. could help in Spanis' development programmer and to

spains trade and now the U.K. could help in Spain's development programme; and to obtain full details of the Spanish Foreign Investment Legislation.

Sir William McFadzean, who led the delegation, says in the foreword of the report that there is little immediate prosect of salling extraint consumer goods by pect of selling certain consumer goods, but there are good prospects for supplying plant, equipment and machine tools, and for entering into mutually beneficial partnerplant, equipment and machine tools, and for entering into mutually beneficial partnerships. He says that more British industrialists should visit Spain, not only to see for themselves the potentialities of the market but also because the Spaniards place a particular importance and value on personal contacts.

The report deals with the Spanish economy, agriculture and cattle breeding, constructional industries, heavy electrical plant and power generation, iron, and steel

plant and power generation, iron and steel industry, heavy engineering, shipbuilding, railways, machine tools, motor vehicles, textile machinery, printing machinery and the chemical industry.

# SWINDON AWARDED £236,495 ROAD GRANT

Mr. Ernest Marples, Minister of Transport, has made a grant of £236,495 towards the cost (£315,000) of building a new road in Swindon, which will be named Fleming

Way.

The road, 1,000 yards long, will connect Queen's Drive and the Walcot expansion area to the central shopping and business area of Swindon, and will also provide a link from the Drove Road roundabout to Fleet Street for cross town traffic.

It will comprise one 30ft. wide carriageway from the Drove Road roundabout to a new roundabout at Whale Bridge, where there will be connections to Prince's Street and Corporation Street. This section of Fleming Way will follow the line of the old canal and provision will be made for the construction of a second carriageway at a later date. later date.

The section between Whale Bridge roundabout and Fleet Street will consist of dual 24ft. wide carriageways with provision for future widening to 30ft. carriageways. The level of the new road will be arranged to allow for the construction of a pedestrian where which will link the accuracy are subway, which will link the proposed new bus station and post office on the north side of the road to the new shopping precinct on the south side.

# SCOTTISH WATER ENGINEERS' ANNUAL MEETING

The 42nd annual general meeting of the Institution of Water Engineers (Scottish Section) was held in Glasgow recently when Mr. J. A. McGregor, senior vice-president, was appointed president, Mr. C. Huddleston, junior vice-president, became senior vice-president, and Mr. J. R. Whyte. a member of the Council, became junior vice-president. Mr. G. Little of Glasgow continues as honorary secretary and

treasurer.
Two new Council members are Mr.
William Linn, Glasgow, and Mr. S. G.
Cockburn, Perth, who join Mr. G. Peat,
Mr. J. A. B. Scott, Mr. J. H. Marray, and
Mr. J. M. Leiper.
Following the annual meeting and lunch,
a Paper on "Prestressed Water Tank" was
presented by Mr. I. W. Neil, A.M.I.C.E.

# May 13

Summer dance of the London branch of the Contractors' Mechanical Plant Engineers, Hendon Way Hotel, Hendon Way, N.W.4.

# May 16

Meeting of the Institution of Civil Engineers, Great George Street, London, S.W.I. "St. Lawrence Power Project — Hydraulic Fea-tures," by O. Holden.

Annual dinner of the Institution of Civil Engineers.

# May 24

Annual general meeting of the Timber Development Association at the Dorchester Hotel, London, W.I., at 11 a.m. Institute of Quarrying sixth short course "Transportation of Materials." Ashorne Hills Conference Centre. May 24-27.

# May 25

Annual general meeting and luncheon of the British Granite and Whinstone Federa-

Annual general meeting of the Institution of Structural Engineers, 11 Upper Belgrave Street, London, S.W.1.

Street, London, S.W.I.
Visit of the Institute of Sewage Purification (Metropolitan and Southern Branch) to British Sugar Corporation, Peterborough followed by a joint visit with members from the Midlands Branch to Peterborough Sewage Works.

# May 29

Annual general meeting of the Hants. and Sussex branch of the Contractors' Mechanical Plant Engineers, Black Dog Inn. Emsworth, 7.30 p.m.

Summer meeting of the Eastern Federation of Building Trades Employers, Clacton-on Sea. May 29-31.

International Road Tar Conference, Harro-gate, May 29-31.

# May 30

Unwin Memorial Lecture at the Institution of Civil Engineers. Great George Street. London, S.W.I. "The Work of the Institution's Research Committee," by Prof. 1. F.

# Inne 1

Yerbury Foundation Lecture at the R.I.B.A., 66 Portland Place, London, W.I. 6 p.m. "Automation and Architecture—The Con-tribution of the Designer to Management Efficiency," by Gordson Friesen, F.A.C.H.A.

Annual general meeting of Corporate Members of Institute of Public Cleansing. Music Hall, Aberdeen, 8 p.m.

Federation of Master Builders' National luncheon and annual general meeting. Connaught Rooms, London. 1 p.m. (Tenta-tive date.)

# June 6

Annual conference of the Institute of Public Cleansing. Aberdeen. June 6-9.

Annual dinner and dance of the Reinforced Concrete Assn., Dorchester Hotel, London,

Meeting of the London branch of the Contractors' Mechanical Plant Engineers, Hendon Way Hotel, Hendon Way, N.W.4, 7,30 p.m.

Half-yearly meeting of the Yorkshire Federation of Building Trades Employers, Scarborough, June 9-11. Southern Counties branch of the Contrac-tors' Mechanical Plant Engineers. Dance-Social at Crown Hotel, Morden, Surrey. 7,30 p.m.

Annual conference of the Institution of Municipal Engineers, Brighton. June 13-17. Annual general meeting of the Institution of Civil Engineers, Great George Street, London, S.W.1.

# June 14

Annual general meeting of the Reinforced Conrete Assn., London, Building and Public Works Exhibition, Castle Bromwich, Birmingham, June 14-24.

International Construction Equipment Exhibition, Crystal Palace, London. June 15-24.

Dinner of the Contractors' Mechanical Plant Engineers, Coventry Street Corner House,

Annual conference and annual general meeting of the Institute of Sewage Purification, Brighton. June 19-23.

FOR THE DIARY

Summer Meeting of the Institution of Mechanical Engineers, Glasgow.

Official visit to Switzerland by members of the Eastern Federation of Building Trades Employers, June 21-July 5.

Conversazione at the Institution of Civil Engineers, Great George Street, London, S.W.I.

"Architecture Today" Exhibition, organised jointly by R.I.B.A. and Arts Council of Great Britain, at 4 St. James's Square, London, S.W.I. June 28-July 29.

International Union of Architects Con-gress, London, July 3-7.

Southern Counties Federation of Building Trades Employers' Summer Conference, Oxford. July 4-5.

Chartered Surveyors Annual Conference, University of Leicester, July 4-8.

Building and Public Works Exhibition, Belle Vue, Manchester, July 5-15.

Half-yearly general meeting of the National Federation of Building Trades Employers, Blackpool. July 12-14.

Meeting of the Southern Counties branch of the Contractors' Mechanical Plant Engi-neers, "Queen Victoria," North Cheam, Surrey. 7.30 p.m.

# July 21

Half-yearly meeting of the Midland Federa-tion of Building Trades Employers Trentham Gardens, Stoke-on-Trent.

International Packaging Exhibition, Olympia. London. Sept. 5-15.

Meeting of the London branch of the Contractors' Mechanical Plant Engineers. Hendon Way Hotel, Hendon Way, N.W.4. .30 p.m.

# Oct. 3

Conference of the Association of Public Lighting Engineers, Scarborough, Oct. 3-6.

# PRESTRESSED FLOORS TO SPAN CORBY ADMINISTRATIVE BUILDING

TWO new buildings are now being constructed for Stewarts and Lloyds, Ltd., at the company's iron and steel works and tube works at Corby, Northants.

One of the buildings is the new admini-strative office block for the works which

will be erected at the main entrance. This is a large rectangular block consisting of a basement and eight floors including the ground floor. The floor slabs will project 3ft. in front of the main walls to give sun protection and provide ledges from which window cleaning and general maintenance can be carried out. The whole



Artist's impression of new four-storey building

framework is reinforced concrete columns with precast, prestressed floors spanning the building.

with precast, prestressed floors spanning the building.

The second building will contain new offices, medical centre and canteen for the tube works. It will have a large ground floor area enclosing a central courtyard around which will be grouped some of the offices, medical centre and canteen. The remainder of the offices will be in a three-floor-high block on top of the ground floor.

The buildings will be erected in 19 months and 15 months, respectively, by John Laing Construction, Ltd. The architects are J. Douglass Mathews and Patners; the engineers are C. V. Blunfeld and Partners and the quantity surveyors, Gardiner and Theobald. Heating, ventilating and plumbing consultants are Matthew Hall, Ltd.

# SMITHS' OVERSEAS AGENCY **APPOINTMENTS**

Thomas Smith and Sons (Rodley), Ltd. have announced further overseas agency appointments, including: Syria, The United Syrian Corporation, P.O. Box 301, Damascus: Libya, The Libyan Petroleum Equipment and Supply Co., P.O. Box 16. Tripoli; Jordan, T. Gargour et Fils, P.O. Box 419, Amman; Nigeria, Ghana and Siern Leone, represented by the Lagos, Acca and Freetown branches of Glyndova, Ltd. London. London.

In addition, negotiations are proceeding for the appointment of agents in Egypt.

International Construction

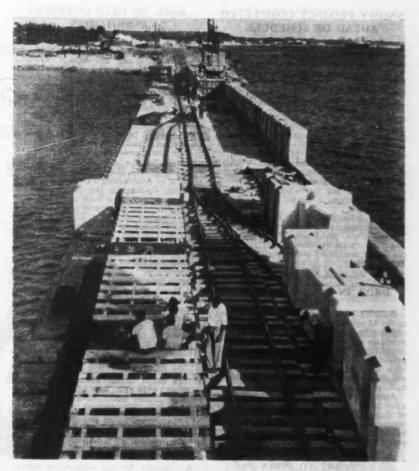
# **BARBADOS** DEEP WATER **HARBOUR**

THE new deep water harbour at Bridgetown, Barbados, was officially opened last Saturday by Sir Grantley Adams, Prime Minister of the West Indies Federation.

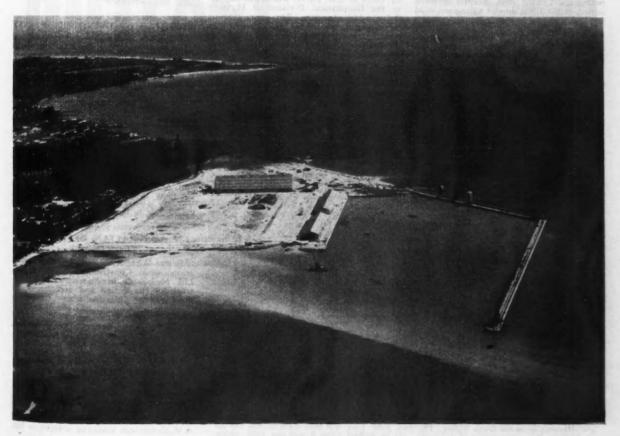
Berthing is provided for eight ships and one of the berths is fitted out for the bulk loading of sugar, which is the island's principal export.

The main works consisted of the construction of a protective breakwater with an inner arm 1,000ft. long and a 1,700ft. outer arm; a 1,200ft. wharf wall; inner berth; and reclamation of 87½ acres on which are built transit sheds and the bulk sugar store. One million cubic yards of material were dredged, and 25,000 concrete blocks weighing between 15 and 26 tons were laid.

The £4m. contract, completed fourmonths ahead of schedule, was awarded to Richard Costain, Ltd., in 1957. The consulting engineers were Coode and Partners.



Construction in progress



An aerial view of the new harbour

# SNOWY PROJECT COMPLETED AHEAD OF SCHEDULE

A NOTHER project in the Snowy Moun-A tains Hydro-Electric Scheme, compris-ing the Tooma Dam, the Tooma-Tumut tunnel and other works on the Tooma

tunnel and other works on the Tooma River, has been completed some months ahead of schedule.

The Tooma project was undertaken by Theiss Brothers Pty. Ltd., the first Australian firm awarded a major contract on the Snowy Scheme. The main part of the project entailed placing a total of 1,400,000 cu. yd. of fill in the 220ft.-high earth-and-rock-fill wall of Tooma Dam.

While engaged on the project workers

earth-and-rock-fill wall of Tooma Dam.
While engaged on the project, workers set a world tunnelling record of 525ft. in a six-day working week, and achieved a record speed for tunnelling from three points by driving a tunnel of 1,252ft. in one week.

Water from the Tunut Dam reservoir will flow through the pine mile Tooms.

will flow through the nine-mile Tooma-Tumut tunnel to Tumut Pond reservoir and thus make available 25 per cent. of the water needed by power stations in the Tumut Valley.

# DROP IN SOUTH AFRICAN BUILDING

Building plans passed by municipalities in the 18 principal urban areas of the Union of South Africa during January and or south Africa during January and February are reported to reflect a building programme, sanctioned in this two-month period, which will cost R12.9 million. This is a considerably lower total than that recorded for the similar period last year, namely R18.6 million.

Almost the entire decrease is accretion, to the control of the similar period control of the similar period last year, namely R18.6 million.

Almost the entire decrease is ascribed to a fall in the value of plans passed in respect of flats and other dwellings, other than houses, figures in respect of which dropped by no less than R5.1 million from last year's total of R7.2 million.

# **EXPORT TO INDIA**

William Bain and Co., Ltd., of Coat-bridge and London, have recently obtained contracts for 1,900 tons of galvanised mild steel wire for export to India. The orders are valued at approximately £165,000 and include the supply of mild steel barbed, fencing, strand and telephone

line wire.

# £93M. TO HELP OVERSEAS TERRITORIES

POUR territories in the Western Pacific (Fiji, the New Hebrides, the Gilbert and Ellice Islands and the British Solomon Islands) will share a total of £341,900 from 25 grants made under the Colonial Development and Welfare Act.

These grants were among 177 grants and loans approved during February and March, making available £4,979,302 for schemes to benefit Britain's overseas territories. They bring the total of Colonial Development and Welfare grants and loans for the first quarter of 1961 to £9,727,117.

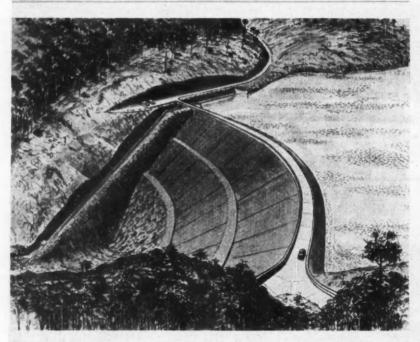
for the first quarter of 1961 to £9,727,117.

Largest of the grants to the Western Pacific territories was £106,872 towards the cost of establishing a Central Teachers' Training College in the New Hebrides, which is to receive a total of £122,778 in six grants. The eight grants approved for the Gilbert and Ellice Islands totalled £42,524, including £11,345 for extensions to the Teachers' Training College at Tarawa. A grant of £1,800 towards the cost of a tellurometer control survey has also been approved for the British Solomon Islands. Islands.

Other grants approved during February and March included £450,000 towards the cost of building a £550,000 College of Arts. cost of building a £550,000 College of Arts, Science and Technology in Malta; £129,500 towards the cost of erecting a science building at the Royal College, Nairobi, £100,000 to provide additional staff housing at the Royal College and £55,000 for extensions to the Women's Halls of Residence at the College; £141,996 to the Leeward Islands for agricultural development ward Islands for agricultural development in the island of Nevis; and two grants totalling £158,717 for additional post-primary school buildings and for extensions to primary schools in the Gambia.

# AIRBORNE EXPLORATION IN S.W. AFRICA

A contract for oil exploration survey with the airborne magnetometer of 40,000 sq. miles in S.W. Africa has been awarded to the Geophysical Division of Hunting Surveys Ltd., London. The concession to be surveyed, which lies near the Angola border, covers an area four-fifths the size of England and is held by the Etosha Petroleum Co.



An artist's impression of the £2m. earth dam which Taylor Woodrow (Sierra Leone), Ltd. are constructing in the Guma Valley. The dam, 900ft, long, will hold 4.400 million gallons to augment the water supply of Freetown. At its highest point it will rise 190ft, above the river bed. The consulting engineers are Howard Humphreys and Sons

# BRITISH TRADE FAIR IN SWEDEN NEXT YEAR

IN an attempt to increase Britain's share of the Swedish market—where Britain is one of the leading suppliers of earthmoving machines—the Federation of British Industries and the Export Council for Europe are jointly sponsoring a British Trade Fair to be held in Stockholm in May

The fair will occupy the whole of the new St. Erik's fair grounds, including the main exhibition hall which is now being extended to a length of 885ft. This hall with two smaller ones will give a total of 100,000 sq. ft. of indoor exhibition space, and in addition there will be 175,000 sq. ft. and in addition there will be 175,000 sq. ft.

or outdoor space.

British Overseas Fairs, Ltd., are now organising extensive publicity and advertis. ing campaigns to attract buyers to the fair, throughout Sweden, Scandinavia generally and Finland.

The basic rates for exhibition space are Interior sites, 28s. 6d. per sq. ft., and exterior sites, 12s. 6d. per sq. ft., the minimum area of any one site being 100 sq. ft. Application forms for space are available from British Overseas Fairs, 21 Tothill

Street. London, S.W.1.

The dates of the exhibition are May 18 to June 3, 1962. The opening hours will be 10 a.m. to 9.30 p.m. daily.

# TURBO-ALTERNATORS FOR **AUSTRALIA**

W. H. Allen Sons and Co. Ltd., Bedford, announce that they have received two contracts recently from Australia for turbine power plant, the total value of the contracts approximating to £83,000.

contracts approximating to £83,000.

The first of these is an order from Kodal.
(Australasia) Pty. Ltd., for a 1200-kW selfcontained double pass-out condensing
turbo-alternator set. The second order has
been placed by the Union Carbide (Australia) Ltd. (Chemical Division) of Sydney,
for one 1400-kW back-pressure turboalternator set, together with installation equipment including a transformer, rectifier and switchgear.

# NIGERIA'S GROWING PROSPERITY

"Tangible evidence of development and growing prosperity in Nigeria and overall potential for future growth" is noted by Mr. E. R. Hole, managing director of Holland & Hannen and Cubitts, Ltd., on his return from West Africa.
"In these days of great problems created

his return from West Africa.

"In these days of great problems created elsewhere by growth and the determination to develop, one felt that in Nigeria the excellent foundations which have been con-

excellent foundations which have been constructed during the growth towards independence will be used well and soundly built upon," he says.

Cubitts, in association with Howard Farrow, Ltd., and Impresa Giachetti, have formed a new company, Farrow Cubits and Associates (Nigeria), Ltd. This new company is associated with Dys Trocca Valsesia and Co., Ltd., who have been established in Lagos since 1954.

# **AUSTRALIAN REFINERY** CONTRACT

Foster Wheeler, Ltd., London, in association with Constructors John Brown, Ltd., Melbourne, have been awarded a conract, Melbourne, have been awarded a contract for the design and erection of the main process units for a new lubricating oil plant at Kwinana, 25 miles south of Perth. The project which is promoted by British Petroleum Refinery (Kwinana), Ltd., will cost about £A7 million (£5,600,000).

# ARMSTRONG WHITWORTH APPOINT GERMAN AGENTS

Noggerath, and Co., Neuer Wall 75. Hamburg 36, Western Germany, have been appointed by Armstrong Whitworth (Metal Industries) Ltd., as agents for the sale of Kue-Ken jaw and gyratory crushers and A.W./Overstrom vibrating screens in that country.

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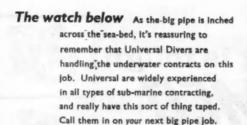




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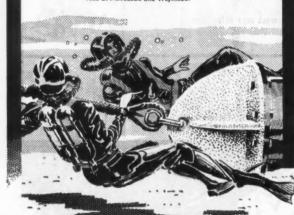
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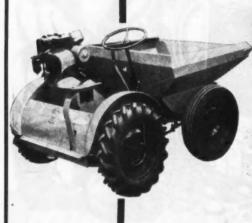
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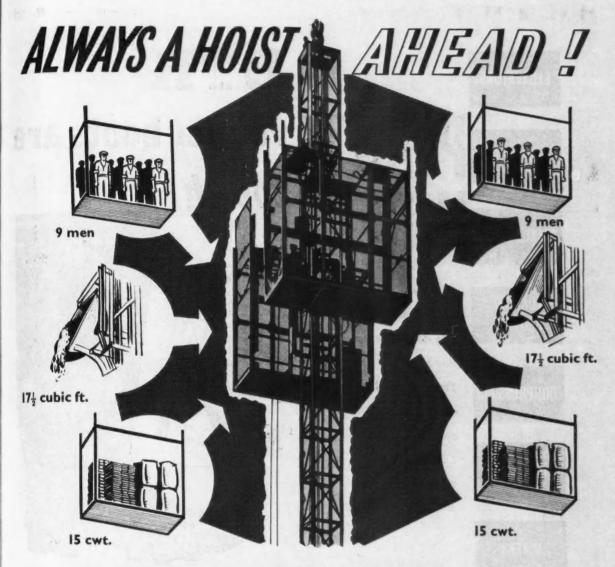
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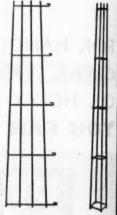
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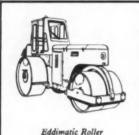
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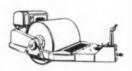
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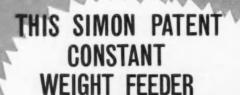
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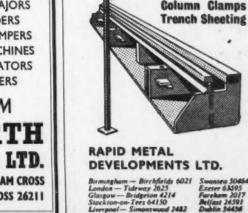
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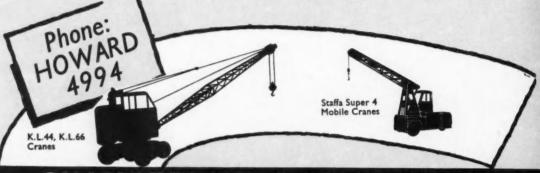
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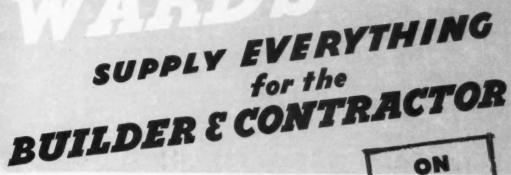


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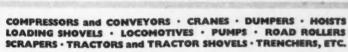


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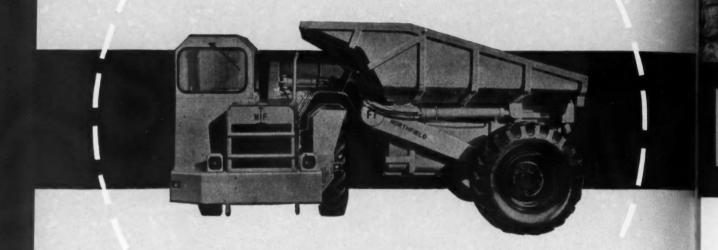
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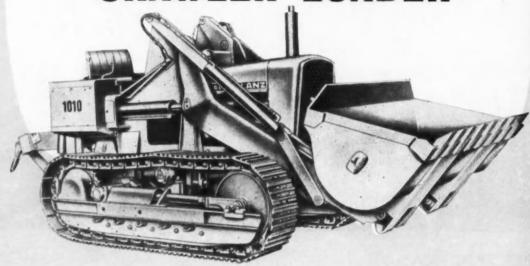
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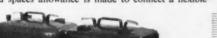
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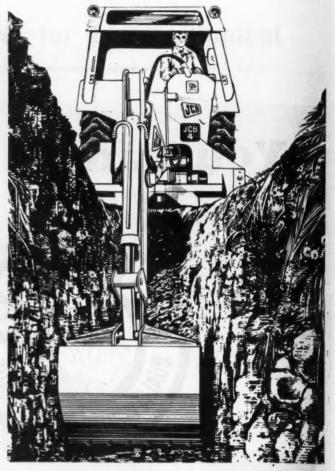
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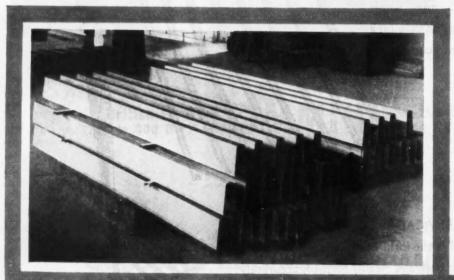
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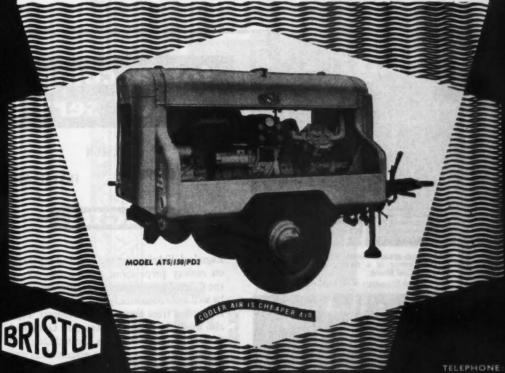
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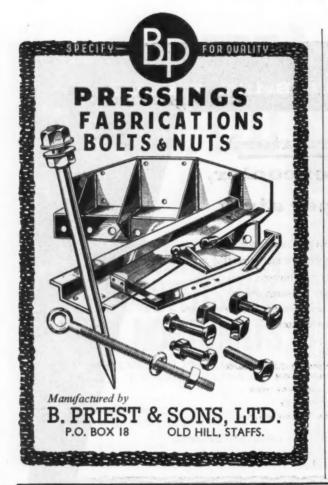
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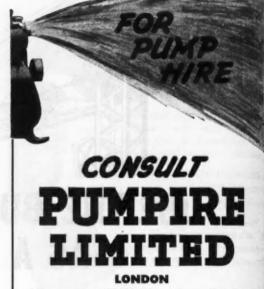
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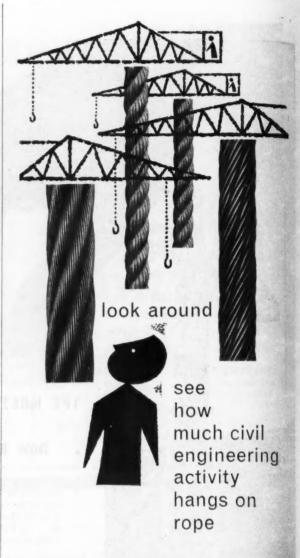
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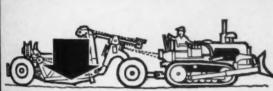




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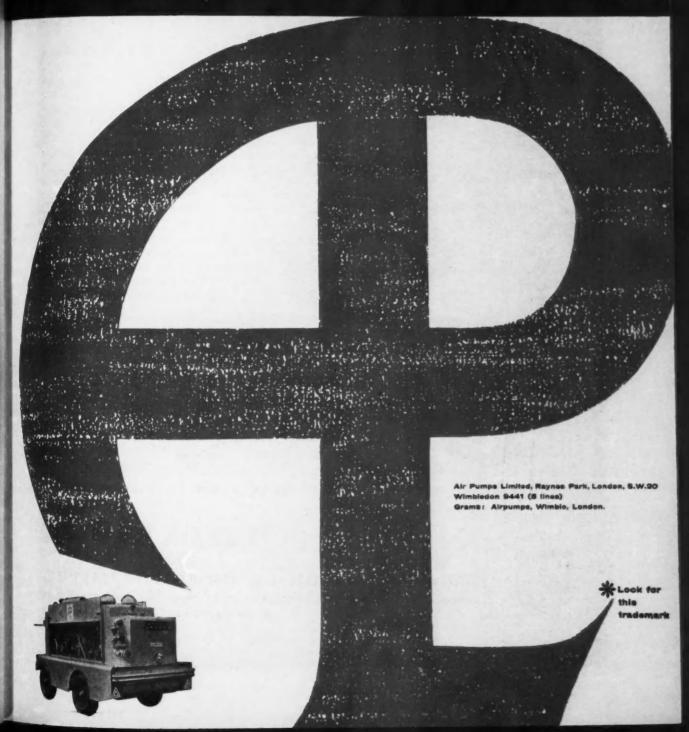
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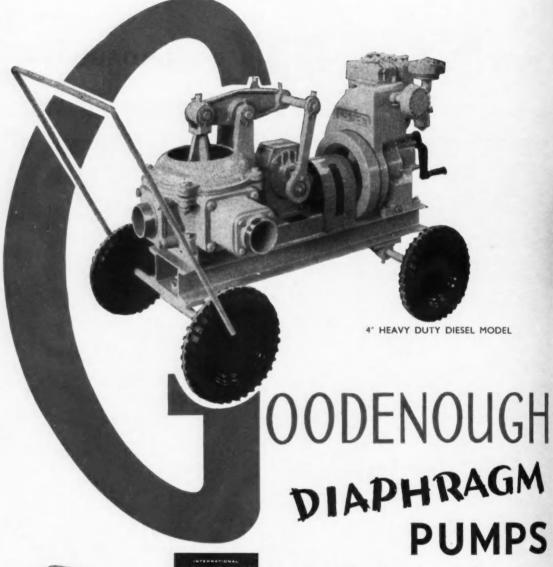


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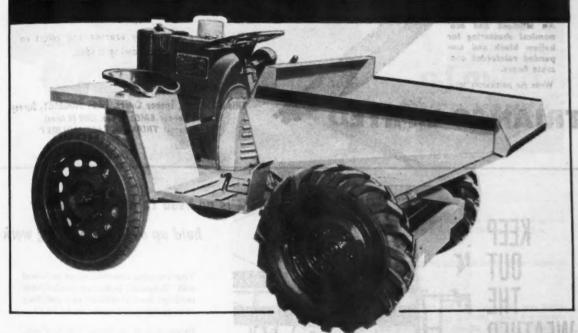
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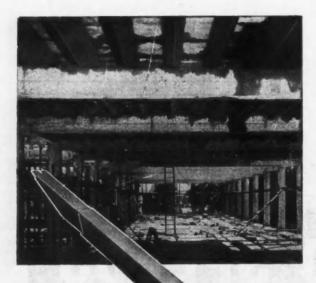
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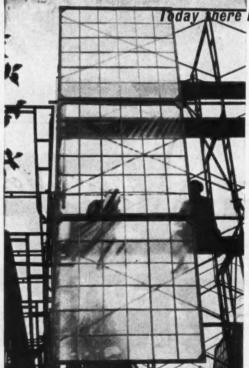
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BROWN BROS. (SITTINGBOURNE), LTD., Chalkwell Road, Sittingbourne, Kent. (Tel.: Sittingbourne 330.) Sand, ballast, shingle, hoggin, hardcore, 25431.) Pits In North Kent, Medway area and Sevenoaks district. All washed and crushed gravel aggregates, concreting and building sand.

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CRONDEN GRAVEL, LTD., Cheadle, Stoke-on-Items, Staffs. (Tel.: Tesn 393.) Manchester Office: Blacktriars 3765/7. Plant capacity, 2,000 tons between the control of the capacity and the capacity a

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LEICESTERSHIRE

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CROSS, GEO. C., AND CO., LTD., Uxbridge had Southall. CTel.: Southall 2264/5/0, Caseria aggregates, hardcore, excavations, denellines. DRINKWATER. W. W. (WILLESDEN), LTD., Sales Rd., Hounslow Hth., Middx. (Hounslow 222/1)

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OD RADHOR TRADING CO., LTD., Quarries in Radnorshire, (Tel.: Kington 421.) (See Hereford-

Radiorabire. (Tel.: Kington 421.) (See Herefore-phire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admisson, Wellington (Tel. 961), Salop.

IRN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

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MOMMOUTHSHIRE ASSOCIATED QUARRIES, LTD., Head Office: I8 Chepstow Road, Newport, Mon. (Tel: Newport 58311/2.) Suppliers of all grades of concrete aggregates, road metalling, yitching stone, tarmacadam and bitum'nous macadam in imestone, dolomite and blue pennant stone. Quarries throughout the county.

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EARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Lelcester. (Tel.: Coalville 1225/7/8; or London: ViGilai. LTD., Station Road, Terrington St. Clement, near King's Lynn. (Tel.: Terrington St. Clement 248). Washed and screened gravel roadstone, washed sharp and fine sands.

51. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4 and Coney Weston 12.) Pits at St. Ives and Knettishall, near Thetford.

8NETTERTON STONE QUARRIES, LTD., Plx Farm Lane, Hemel Hempstead, Herts. (Tel.: Backhamsted 1205/9). Pits at Snetterton. Concrete aggregates, building sand.

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Ferrers, Northants. (Tel.: Rushden 3344 and

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Sale: 10. S.S., building sand, hardcock

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NOTTINGHAMSHIRE

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SENGRY AND SONS, LTB., Lengmoor, Kingaland, Leominster, Herefordshire, (Tel.: Kingaland 3014-); (See details under Herefordshire), LTB., CLE. Little, LTB., CLEPHERSON, LTB., CLEPHERSON, LTB., LTB., CLEPHERSON, LTB., CLEPHERSON, LTB., CLEPHERSON, LTB., LTB., CLEPHERSON, LTB., LTB., CLEPHERSON, LTB., LTB., CLEPHERSON, LTB., LTB., CLEPHERSON, LTB., LTB.,

# shire.) SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Weilington (Td.: 981), Salos.

#### RUTLAND

BONS, F. B., AND SERS, LTD., Welby House, Market Decoing, Peterborough. (Tel.: Market Decoing 3321/2383.) (See Liacolashira for details.)

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HOVERINGHAM GRAYELS, LTD., Hoveringham, Nottingham. (Tel: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)
KETTON STONE CO. (Prop.: Andrew's Garage), Ketton, near Stamford. (Tel: Ketton 206.) Hard-core, roadstone, crushed stone, top soil, allica day. core, roadstone, crus Quarries at Ketton. TERBOROUGH QUA

Quarries at Ketton.
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#### SOUTH WALES

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Producers of coarse and time aggregate, dradged
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STAFFORDSHIRE

WILLAND GRAVEL CO., LTD., Cheadle, Stoke-onTrent. (Tel.: Cheadle 2323/4, 2119 and 2195.)

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wood, Staffs. Washed crushed gravel and washed
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sand. (Tel.: Brownhilis 3253.)

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all purposes, Ground limestone.

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PICKERSON. M. (CONTRACTORS), LTD., Gloucester Street, Cambridge. (Tel: Cambridge 59973/4.)

Street. Cambridge. (Tel.: Cambridge S6973/4.)
Street. Cambridge. (Tel.: Cambridge S6973/4.)
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WEBB. C. CAMBRIDGE. 35 Magrath Av., Cambridge.

WEBB, G., CAMBRIDGE, 35 Magrath Av., Cambridge. (Tel.: 59966, 53969, 50353 (night) ). (See Cambs.)

#### SURREY

\*\*OFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks, (Tel. 1026/7.) (See Berkshire.)

\*\*DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.)

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shingle, ballast, etc.

MARCO (CROYDON), LTD., Hampton Road, West
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TWICKENHAM GRAVEL Co., LTD., Government
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aggregates, hardcore, ashes, cement. Clinker block
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winton, WM. R., LtD., Send, Woking. (Tel. Ripley 2454/5.) All grades sand, shingle, ballast hoggin and ashes. Clinker block manufacturers.

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HALL AND K.Co. LTD. 16 Chapel Road. Worthing.

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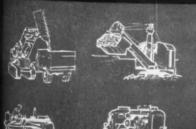
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